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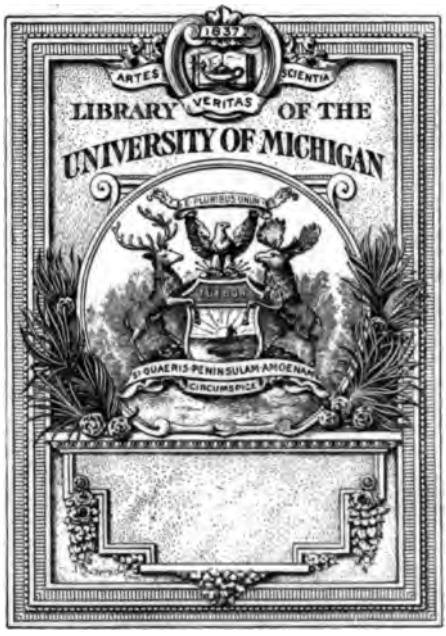

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ANNUAL REPORT OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA

YEAR ENDED JUNE 30, 1907

Vol. II

ENGINEER DEPARTMENT REPORTS

WASHINGTON
GOVERNMENT PRINTING OFFICE
1908

TABLE OF CONTENTS.

	Page.
Asphalt block pavements, specifications for	205
Asphalts and cements, report of inspector	71
Bridges, report of engineer	6
Buildings, report of inspector	132
Chief clerk, report of	170
Elevators, report of inspector	142
Engineer Commissioner, report of	v
Fire escapes, report of inspector	143
Grade damages, report of special assistant counsel	74
Highways, report of engineer	1
Parking, report of superintendent	63
Permit clerk, report of	165
Plumbing inspector, report of	154
Repairs, report of superintendent	145
Roads, report of superintendent	4
Rock Creek Park, report of assistant engineer	164
Sewers, report of superintendent	100
Sheet asphalt pavements, specifications for	197
Steam engineers, report of board of examiners	145
Street extensions, report of engineer	67
Streets, report of superintendent	4
Subsurface and building divisions, reports of	80
Surface division, reports of	1
Surveyor, report of	61
Water department, report of superintendent	80
Water registrar, report of	97
Wharf committee, report of	167

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EXTRACT FROM THE REPORT OF THE COMMISSIONERS OF THE DISTRICT OF COLUMBIA FOR THE YEAR ENDED JUNE 30, 1907.

OFFICE OF THE COMMISSIONERS
OF THE DISTRICT OF COLUMBIA,
Washington, November 22, 1907.

The Commissioners of the District of Columbia herewith submit, for the information of Congress, as required by law, their annual report of the official doings of the government of said District for the fiscal year which ended June 30, 1907.

* * * * * * *

ELIMINATION OF GRADE CROSSINGS AND CONSTRUCTION OF UNION STATION.

About 95 per cent of the total work on elimination of grade crossings and the construction of the Union Station has been completed. The Baltimore and Ohio Railroad Company moved into the station October 27, 1907, although there still remained at that date a good deal of finishing work to be done. The other railroad lines entering the city occupied the station November 17. The new line of the Philadelphia, Baltimore and Washington Railroad, from the Union Station to Magruder station, in Maryland, over which its passenger trains will enter the station, has been completed and the tunnel and tracks under First street, through which traffic will go to the south, are completed and ready for use. The new connection of the Baltimore and Ohio Railroad with the station has been completed, and the bridge across the tracks of this company at Rhode Island avenue has been finished. The bridges at New York avenue and T street are under construction. The former will be completed before the end of the year and the latter within a short time afterwards. The use of the new station will cause the abandonment of the present station of the Philadelphia, Baltimore and Washington Railroad, at Sixth and B streets northwest, and the present station of the Baltimore and Ohio Railroad at New Jersey avenue and C street northwest. A substation for southern trains is under construction near the intersection of Fourteenth and Water streets southwest.

On the line of the Philadelphia, Baltimore and Washington Railroad the tunnel and viaduct on Virginia avenue to Four-and-a-half street and the bridges over South Capitol and First streets and Delaware avenue have been completed. The new freight station on Virginia avenue between Third and Four-and-a-half streets is in use, and work is in progress on the freight depot on the north side of Virginia avenue between Four-and-a-half and Seventh streets. Between Ninth and Fourteenth streets the low-grade tracks and yards are in course of construction and the work well advanced. It is contemplated to complete the bridges at Ninth, Tenth, Eleventh, and Twelfth streets before next spring.

The work being done by the District of Columbia in connection with the elimination of the grade crossings, which involves changes in the line and grade of streets, is progressing satisfactorily, and it is expected that all of the filling to be done in the plaza in front of the Union Station will be completed in the spring of next year after the railroad tracks running from the site of the new station to the old Baltimore and Ohio station are removed and the space occupied by them filled in. The fill in the plaza, which in some places is 40 feet in depth, will undergo considerable settlement, and no permanent roadway surface can be constructed upon it until after subsidence. It is the intention to place macadam there temporarily and eventually to pave with asphalt. Preparations are also being made to place the fountain, lamps, trees, and other constructions called for in the design for the plaza in front of the station.

GRADE DAMAGES.

Proceedings to ascertain the damages to private property due to change of grade in connection with the location of the Union Station and the elimination of grade crossings are still in progress. During the year 164 claims for damages were heard and determined by the grade damage commission. In 111 of these cases damages were awarded aggregating $88,065, while in 53 of the cases no damages were awarded to the claimants, upon the ground that the benefits offset the damages.

When this grade damage commission was appointed the law contemplated that only damages due to changes in grade in connection with the construction of the Union Station were to be heard by it, but by a subsequent act of Congress the scope of the commission and the area within which damages for change of grade were to be considered was extended so as to cover changes in grade on the line of the Philadelphia, Baltimore and Washington Railroad in the southeast and southwest sections of the city. Ninety-seven petitions for allowance of damages in the southeastern section have been filed. The work not having been entirely completed in the southwest section, no claims have yet been filed for damages there.

DISTRICT BUILDING.

Work on the new District building is nearing completion, and the Commissioners expect to occupy the building on July 1, 1908. This work was started under the direction of Maj. Chester Harding, Corps of Engineers, U. S. Army, who was appointed by the President for that duty. During the year Major Harding was ordered to the Isthmus of Panama to assist in the construction of the Panama Canal and relieved from the duty of supervisor of construction, his place being taken by Capt. William Kelly, Corps of Engineers, U. S. Army, assistant to the Engineer Commissioner. This building is one of the handsomest architectural structures ever constructed in the city of Washington, and when it is occupied by the offices of the District of Columbia it will be the first time in the history of the municipal government of the District of Columbia that it has ever occupied a building which it owned. All of the various offices connected with the executive administration of the District of Columbia

will be housed in the building and the convenience to the public will be much greater than it is at present. The building is thoroughly modern in every respect and contains every device to promote the rapid administration of public business. An appropriation has been asked for new furniture and equipment.

The Commissioners have submitted in their estimates for the next fiscal year a list of such employees as will be required to take care of the building and its equipment. This list of employees and their salaries has been given careful consideration, and the salaries were fixed by comparing them with those of similar employees in buildings of the same character occupied by the offices of the United States Government.

ROADWAY PAVEMENTS.

About $390,000 was spent during the year for paving new streets and repairing and repaving old ones within the city limits, and about $190,000 was expended in the construction and repair of county roads and suburban streets. The prices paid for asphalt block pavement during the year were $1.76 per square yard paved on edge, and $1.60 per square yard paved flat. The prices for the current fiscal year are $1.68 and $1.69 per square yard (two contracts) for sheet asphalt pavement; $1.80 per square yard on edge, and $1.65 per square yard paved flat for asphalt block pavement. The limitation on the price to be paid for laying sheet asphalt pavement in the appropriations for 1907, $1.65 per square yard, was increased by Congress to $1.80 per square yard in the appropriations for the fiscal year 1908. This was done as the District was unable to secure a contract within the former limitation.

The Commissioners are in receipt of petitions from business men and property owners on streets paved with granite block asking that the granite block be replaced with sheet asphalt. The reasons given are that the rough granite block pavements are noisy and interfere with business and the quiet of residents. The Commissioners believe that most of these pavements should be replaced with asphalt pavements, but Congress has prohibited the Commissioners from including such work in their estimates. The streets of Washington are not subjected to very heavy traffic, as Washington is not a manufacturing city, and the Commissioners believe that all streets should be paved with a smooth pavement, except in a few instances in business sections where the traffic is heavy, such as adjacent to railroad freight stations and in the wholesale market district.

The appropriation of $300,000 for repairing and resurfacing the older asphalt pavements has resulted in improving the condition of the streets on which these old pavements existed. The most important work of this character is that on Pennsylvania avenue from Sixth to Fifteenth street, which is nearing completion. This avenue, which had a very bad transverse grade, was raised in the center and the entire roadway resurfaced at a cost of about $125,000. The work involved the raising of the street car tracks on the avenue, which was paid for, as well as the space within 2 feet of the tracks on either side, by the Capital Traction Company. The Commissioners are asking for the sum of $400,000 for the repair to streets for the coming fiscal year, in order that more work of resurfacing

may be done. The greatest era of asphalt paving in the history of the District was from 1888 to 1892, inclusive. These pavements have had more than the average life of asphalt pavements, but are now calling urgently for replacement. Some asphalt block pavements have been in use for over twenty years and are also requiring renewal.

BRIDGES.

The Connecticut Avenue Bridge has practically been completed and, it is expected, will be thrown open to travel about December 1. In order to preserve the approaches to this bridge and permit of their better architectural treatment, additional land should be acquired on either end of the bridge. The purchase of this land is of vital importance to the appearance of the structure, if it is not bought private building operations will practically extend to the bridge itself.

The Anacostia Bridge over the Eastern Branch is progressing satisfactorily, and plans have been made for a concrete steel bridge over the Baltimore and Ohio Railroad tracks at the south approach of the bridge. The cost of this bridge is to be borne by the railroad company.

The K Street Bridge over Rock Creek has been completed.

Bridges are being constructed by the railroad companies across their tracks at New York avenue and T streets in accordance with the plans for eliminating grade crossings. The bridge across Piney Branch, on the line of Sixteenth street, has been completed, and the grading of its approaches nearly so.

SIDEWALKS AND ALLEYS.

The amount expended in laying sidewalks and in paving alleys was about $220,000. The sidewalks were constructed of cement and the alleys paved with vitrified and asphalt blocks. The prices paid for laying cement sidewalks were $1.134 and $1.244, this work being done under contract, while the alleys are paved by day labor.

The Commissioners find it very difficult to lay sidewalks as fast as they are demanded by the property owners. Practically all work requested is ordered, but the actual laying of the walk takes place frequently a long time after the work is ordered on account of the fact that the office work in giving grades and lines and the work of the contractor in laying the walks can not be done as fast as the work is ordered. The sidewalks are laid and alleys paved at half cost to the property owner, and the Commissioners usually order the work only upon the request of the owners of a majority of the property on the frontage to be paved. They are empowered by law, however, to lay the walks and pave alleys whenever the public health, comfort, or safety demand such action. A small increase is asked in the usual appropriation for this work.

SURVEYOR'S OFFICE.

While there was a slight decrease in that part of the work of the surveyor's office affected by building operations, due to the fact that there was less building going on during the year than in the year previous, the total amount of work done was about the same as dur-

ing the two previous years. The additional work was the recording of new block and square numbers under the recent act of Congress providing a new system for designating parcels of land in the county in a manner similar to that used in the old city limits. This office does work for private parties and also work for the different departments of the District of Columbia in making necessary surveys. The work done for private parties is covered by fees which are paid into the United States Treasury, and these fees for the year amounted to $15,102.75. The municipal survey work is paid for out of appropriations made for the conduct of the office.

The character of the work done is as follows: Preparing surveys and plats, recording subdivisions, locating walls of buildings and verifying the location of these walls after construction and making surveys in connection with the opening of alleys, minor streets, and street extensions, and with paving of alleys.

TREES.

The number of trees set out during the year was 2,574, a decrease of 658 over the number planted during the previous year. The number of trees removed was 1,111, leaving the total number of trees now planted on the streets and avenues of the District 92,706, being a net increase over last year of 1,463 trees. Ten varieties of trees were planted, namely, American elms, gingko, American lindens, Norway maples, pin oaks, pyramidal oaks, red oaks, silver maples, sugar maples, and sycamores. The tree planting is done during the spring and fall, and the trimming is done practically all during the year. A large number of locusts and Carolina poplars are being removed in the northeast, southeast, and southwest sections of the city and are being replaced by better varieties. These trees are undesirable, as they require frequent trimming. With the advance in age of the trees there is a consequent increased necessity of trimming. An additional appropriation should be made for this purpose, as well as for extending the tree system on streets where they are not now planted. It is the endeavor of the Commissioners to set out trees in the District as the land is subdivided and developed, but they are not set out until the curbs of the new streets have been set, so that the permanent position to be occupied by the trees may be determined.

The Commissioners are constantly in receipt of requests for the removal of trees from the owners of business property who desire an unobstructed space between the street and their buildings for the purpose of displaying signs advertising their business. Such requests are not granted; if they were, Washington, instead of being a forest city, as it now is, would soon be denuded of trees on streets where they are probably needed most for shade purposes.

MAIN AND PIPE SEWERS.

The total length of main and pipe sewers constructed during the year was about 17.1 miles. The total length of sewers in the District of Columbia existing on June 30, 1907, was about 501.5 miles. The total cost of the sewer system at the close of the fiscal year was $15,519,614.40.

SEWAGE DISPOSAL PROJECT.

The sewage disposal project is practically completed, with the exception of dikes proposed along the low portions of the city to prevent flooding in times of high water, and the necessary connections from the older portion of the sewerage system to the new intercepting sewers which are intended to carry the sewage to the pumping station. No appropriation has yet been made for the dikes, although the Commissioners have submitted estimates for them for the last two years. An estimate is again submitted to Congress for beginning this work, and the appropriation should be made. Until these dikes are constructed the system will lack the one feature necessary to its success. The dikes are to protect the low area in the southwest and in the northwest near the Mall from flooding during high stages of the Potomac River.

Practically all sewage which formerly discharged into the James Creek Canal and which formed a serious menace to the health of the city has been diverted into the intercepting sewers and is carried to the pumping station at the foot of Second street southeast, where it is pumped and discharged at the outlet of the system, at Magazine Point, near Alexandria, on the Potomac River. All sewage which formerly discharged into the old Seventeenth Street Canal has also been similarly diverted. Connections are now being made to divert all sewage, which formerly was discharged on the water front of the city to the pumping station, where it will be pumped and discharged at the sewer outlet above referred to. The amount of water in the river at the point of discharge is believed to be sufficient to dilute the sewage, so as to make it inoffensive, and the outgoing tides will carry it down the river.

Tests of the machinery made at the pumping station indicate that it will meet all the requirements for which it was designed.

The practical completion of the sewage-disposal project makes it wise to consider the subject of sewage purification, when the population of the District shall be increased beyond the capacity of the Potomac River to dilute the sewage so that its discharge into the river in a crude condition will not be admissible. The sewage-disposal system has been based upon the discharge of sewage from a population of 500,000 persons. After that limit is reached it will be necessary to partly purify the sewage before it is discharged, in order to prevent the creation of insanitary river conditions. The subject of sewage purification is still in an experimental stage. Among the systems now in use are sewage farms, filtration beds, the compact filter, and the sprinkling filter. Another method is the septic-tank treatment. The superintendent of sewers recently visited cities in England, where examples of sewage purification were found, and the results of his observations are contained in his report, which is contained herein. The purification of sewage by modern methods consists in a series of operations, each of which partially eliminates the putrescible constituents. While the matter of sewage purification for Washington has not yet been definitely determined upon, it is probable that the result can be obtained by the use of septic tanks, which it is believed will effect a sufficient partial purification so that the effluent from the tanks may be discharged in the

river for a considerable period of years, after which further purification will be necessary.

SUBURBAN SEWERS.

The sum of $100,000 appropriated for the extension of the suburban sewer-service system has permitted the construction of a large number of service sewers in the outlying parts of the District. These service sewers, however, can only be constructed where trunk sewers are available to carry the sewage from the outlying points to the sewage pumping station. In order to adequately take care of the sewage of the large number of houses which are being constructed as the suburban portions of the District are being developed, further trunk sewers are necessary, as well as the extension of trunk sewers already started. Among the most important of these extensions are the construction of a sewer along the west side of Rock Creek between P street and Military road, which is required as an outlet for the territory between Wisconsin avenue and Rock Creek and the territory between Piney Branch and Brightwood avenue and Rock Creek; also sewers in the valley of Stickfoot Branch between Nichols avenue and the Baltimore and Ohio Railroad, which is required to prevent the flooding of a section of Barry Farm subdivision during heavy rainstorms, and for the subdivisions of Congress Heights and North Columbia Heights.

The development of these suburban places is being seriously retarded by the lack of sewer facilities, and the Commissioners believe that appropriations should be made for their construction.

BUILDING.

The estimated value of building work during the year, not including buildings of the United States Government, was $12,714,472, which is an increase over the preceding fiscal year of $925,271. The number of permits issued was 9,862, an increase of 1,654 over the previous year. The number of dwelling houses constructed was 1,251, a decrease of 183, and the number of apartment houses, 26, a decrease of 27 over the previous year. One hundred and seventy-seven business buildings were constructed, being a decrease of 110 over the previous year. The distribution of the value of these improvements, and also the repairs to existing buildings, is as follows:

Section.	Buildings.	Section.	Repairs.
Northwest	$4,514,303	Northwest	$932,389
County	4,422,664	County	176,758
Northeast	1,406,527	Southeast	61,389
Southeast	719,285	Northeast	55,118
Southwest	312,910	Southwest	47,779
Total	11,375,689	Total	1,273,433

There are estimated to be 50,332 brick buildings and 22,268 frame buildings in the District of Columbia. The following municipal

buildings were constructed under the direction of the inspector of buildings. The cost given is exclusive of the cost of site:

Anthony Hyde School, O street between Thirty-second and Thirty-third streets northwest	$43,470
F. L. Cardozo School, I street between Half and I streets southwest	42,600
Police court, Sixth and D streets northwest	72,579
Home for the Aged and Infirm, Bellevue and Blue Plains	119,850
Industrial Home School, Bellevue and Blue Plains	73,500
Workhouse, Washington Asylum grounds	99,695
Total	451,694

The fees received for permits issued by the inspector of buildings during the year were $8,084. The average cost per cubic foot of constructing municipal buildings ran from 11.9 cents for an 8-room brick school building to 26 cents for a fireproof workhouse building at the Washington Asylum. The following buildings are in course of construction: Ketcham, Brightwood, and Deanwood school buildings, a chemical engine house at Bennings, and a crematorium at the Washington Asylum.

All buildings in course of construction in the District of Columbia require inspection by this office. During the year about 5,000 such buildings were erected or altered, and to inspect the work done but nine assistant inspectors are provided for this purpose. These inspectors made about 64,000 visits to the buildings, or about 12 visits to each piece of work. This is more than 20 inspections a day for each man and is not sufficient supervision.

FIRE ESCAPES.

A great deal of work devolved on the building inspector in connection with the carrying out of the law requiring fire escapes on certain classes of buildings 30 feet or over in height. No additional force was allowed the office on account of this additional work, and it was necessary to employ an inspector under the appropriation for the employment of temporary additional inspectors. Steps were taken, however, to see that the law was complied with and considerable progress has been made. Additional inspectors should be provided to expedite the work.

MUNICIPAL ARCHITECT.

The Commissioners believe that the work of the inspector of buildings has become so great that the duties of the office should be divided so that the inspector of buildings would, as his office indicates, have supervision of the inspection of buildings and that the designing of municipal buildings, which is now performed under his supervision, should be under the supervision of a new office, which the Commissioners believe should be created, namely, that of municipal architect. It would be the duty of this officer to supervise the preparation of designs for and the construction of all municipal buildings for which appropriations are made by Congress and also to supervise repairs and improvements on existing buildings. The Commissioners have this year recommended appropriations for a number of public school and other municipal buildings, and as the work of private builders is always increasing it is believed that the necessity now exists for this officer.

REVISING BUILDING REGULATIONS.

The committee which has been appointed by the Commissioners to revise the building regulations is still working on the revision. The scope of the matter is so large that much arduous labor is involved, and as the members of this committee serve without compensation it also involves a great sacrifice of their time. It is hoped, however, that before another year the regulations will be revised and printed.

REPAIRS TO BUILDINGS.

The amount expended in repair work on school buildings and grounds, engine houses, and police stations was $82,750. The greater part of this work was done by day labor under the supervision of the superintendent of repairs, and 170 workmen were employed. Most of the work was done during the months of July, August, and September, at which time the public schools are not in session and it is more convenient to do the work without interfering with the work of the schools. The day-labor work included carpentering, painting, tinning, grading, paving, whitewashing, plastering, etc. Calciming, steam fitting, mill and iron work were done under contract.

BOARD OF EXAMINERS OF STEAM ENGINEERS.

The board reports that it held 58 meetings and examined 241 applicants, of whom 110 were found competent and were granted licenses.

PLUMBING BOARD.

Fifty-three examinations were given by the plumbing board to applicants for license as master plumber and gas fitter. This board consists of three members, one of whom is required to be a master plumber, one a journeymen plumber, and one an employee of the District of Columbia. No person can practice the business of plumbing and gas fitting in the District of Columbia until he has passed an examination given by this board.

PLUMBING AND PLUMBING INSPECTION.

During the year the plumbing office made 32,100 inspections, an increase of 915 over the inspections for the preceding year. This increase was smaller than that in preceding years, and was due in part to unsettled conditions in the labor situation. An important part of the work of this office is the preparation of plans and the installation of new plumbing in the older school buildings. For this purpose $45,000 was expended and the plumbing in eight school buildings completely remodeled. There is much of this work yet to be done, and an additional appropriation of $50,000 will be asked to carry on the work. The office also requires the installation of plumbing in private residences under the compulsory drainage act, and in cases of failure to install the plumbing after notice the work is done under the direction of the office and the cost assessed against the property.

The construction and operation of the two public convenience stations is also under this office.

PUBLIC CONVENIENCE STATIONS.

The two public convenience stations for which appropriations were made have been completed and opened to the public. One is located above ground, at Seventh street and Pennsylvania avenue northwest, and the other below ground at Thirteenth street and Pennsylvania avenue northwest. These stations have been used by an average of 60,000 people per month, which proves the wisdom of their construction. There is an urgent need for more such stations, and the Commissioners have recommended the construction of one near Seventh and K streets northwest, on a public reservation, the Chief of Engineers, U. S. Army, assenting to that occupation.

PUBLIC BATHS.

In connection with the matter of public convenience stations the Commissioners also suggest the advisability of the construction of public baths. Such public baths exist in a number of cities in the United States, and there is the same demand for them in Washington as elsewhere. There is a large class of people who have not the facilities for bathing at their homes, and to this class a public bath would be a blessing. There is no greater necessity in elevating the social conditions than the establishment of such baths.

STREET AND ALLEY EXTENSIONS.

During the last Congress 25 street-extension measures were passed, and condemnation proceedings have been begun in all of them. Some have been entirely completed and others are still pending.

The street-extension office also has charge of negotiations for the purchase of all sites for municipal buildings and condemnation proceedings in these cases where necessary, and also in the cases of opening alleys and minor streets. This office prepares plats and descriptions necessary for instituting condemnation proceedings.

STREET NAMES.

The system of new street names for the portion of the District of Columbia lying south of the Eastern Branch of the Potomac River is about to be placed on record. When this is done, the entire system of new street names for the District of Columbia outside of the city of Washington, adopted under act of Congress approved February 16, 1904, will be a matter of record.

STREET RAILWAYS.

No new street-railway measures were enacted by the last Congress. Additional street-railway facilities are needed on account of the construction of the new Union Railroad Station. Bills providing for such extension were introduced at the last session of Congress, but were not passed. As a consequence, no street-railway communication to this station exists within a distance of two blocks in any direction from the station. This, of course, causes great inconvenience to the traveling public, and the Commissioners earnestly hope that Con-

gress, at its next session, will pass without delay the necessary measures to extend the existing street-railway lines to the station.

The Commissioners also favor an extension of the Capital Traction lines from Florida avenue and Seventh street northwest to Pennsylvania avenue and Eighth street southeast, by way of Florida avenue and Eighth streets, this extension being urgently demanded by the people of the eastern section of the city to give them some north and south means of public traffic.

WATER FRONT.

The Commissioners expect to submit to Congress at its next session a special report on the improvement of the water front, in accordance with the directions contained in an appropriation for plans and surveys for such improvement in the District appropriation act for the fiscal year 1906. The river traffic is growing in importance and adequate facilities should be provided for taking care of it. The present condition of the water front reflects no credit on the city, and the available wharf property is not sufficient to meet the demands made for wharf space. Practically the only wharf property available is that along the Washington channel and this is all under lease. The wharves and buildings have been standing in most cases for probably half a century, and very little improvement has been made to them. They were built by private parties and did not come under control of the Commissioners until the year 1903, when, through legal proceedings, it was determined that the land south of Water street upon which the structures were built belonged to the United States. No appropriation has since been made for any improvement, and what little has been made was made by tenants under the terms of their leases. The general condition, however, is one of dilapidation, and the Commissioners believe that an entire rearrangement and reconstruction of the water front is necessary. They further believe that the water front along the Anacostia River should be acquired. It is probable that legal proceedings would be necessary to determine the ownership of this frontage, as there are undoubtedly claims of private owners to riparian rights.

WATER MAINS.

About 17 miles of water mains were added to the water distribution system during the year. The total mileage of mains is 449. Ninety-two new fire hydrants, 4 public hydrants, and 19 public horse fountains were erected. The total number of fire hydrants in service is 2,336, public hydrants 273, and horse fountains 123. The total number of shallow wells in service at the end of the year was 65, and of deep wells 33. Since the close of the fiscal year the Commissioners ordered that practically all of the shallow wells be closed. This action was taken as the result of analyses made of water taken from these wells, which showed pollution. Considerable objection was raised by citizens to this closing, but in view of the prevalence of typhoid and the condition of the water the abandonment of the wells was imperative. The Commissioners believe that wells are of great benefit to the poorer classes of citizens who can

not afford to buy ice, but these should be deep wells, where the water would be difficult of contamination. The Commissioners have asked a small appropriation for the driving of a few such wells.

WATER METERS IN PRIVATE RESIDENCES.

Five thousand eight hundred and seventy-two water meters were installed in private residences during the year. These were installed under authority of Congress, and were paid for out of the water revenues. It will probably be several years before all residences are equipped with meters. The work was begun at the highest part of the District, in the vicinity of Tenleytown, because the water furnished to these high areas costs much more to furnish, and any reduction in waste would immediately result in a reduced cost, and because these areas being wholly served by pumps any considerable reduction in the per capita consumption could be readily observed. The use of the meters for the determination of water rents was not begun until July 1, 1907. The meters are set on the service pipes outside of the houses. But little opposition was encountered on the part of the residents, and this is rapidly decreasing as the conditions involved are better understood. The meters are not only intended to prevent waste of water, but to provide an equitable basis on which to base charges. The former system of charging for water by the frontage and number of stories was an arbitrary and unreasonable method and never proved satisfactory.

ADDITIONAL WATER SUPPLY.

Attention is again invited to the necessity for the erection of another conduit from Great Falls to the city. The present conduit, which was built in 1854, is not in as good a condition as it should be, and in case of any accident happening to it the entire water supply would have to be cut off until repairs were made. Besides, the ultimate capacity of this conduit is 90,000,000 gallons, while the average daily consumption of water is 68,000,000 gallons, and during the cold of winter when the water users allow their faucets to run to prevent freezing the consumption has reached 106,000,000 gallons and remained at that figure for several days, resulting in lowering the water in the reservoirs 5 feet. This additional conduit has also been recommended by the Chief of Engineers, and his estimates contain an item for $10,000 for making the preliminary survey.

Gradual extensions of the water system are being made as the District is built up and as the water funds justify. The water department is self-supporting, its revenues being derived from taxes levied for laying service mains and from receipts from water rents.

WATER REVENUES.

During the year 1,951 additional buildings were connected with the public water system. The revenues during the year were $535,950.92. These revenues are made up from assessments levied for water mains and from water rents. This sum is an increase over the revenues of the last fiscal year of $130,165.02.

TRANSFER OF WASHINGTON AQUEDUCT AND FILTRATION PLANT TO THE COMMISSIONERS.

The bill introduced in the last Congress providing for the transfer of the Washington Aqueduct and filtration plant to the Commissioners failed to become a law, and the Commissioners earnestly recommend that such a law be passed at the next session of Congress. The jurisdiction over the water-supply system is now placed by law under the Chief of Engineers of the United States Army, while the jurisdiction of the water-distribution system is under the Commissioners. It would tend to much better administration if the entire water system was under one control. The division causes a division of responsibility, the duplication of work, and the employment of a duplicate force. Part of the water mains are under the control of the War Department and part under the control of the Commissioners. The water distributed flows from one set of mains to the other and back again in the supply of Government and private buildings. The Chief of Engineers has recommended such a transfer. As an indication of the inconvenience resulting from the present divided control, the Commissioners would cite the case of the Conduit road, which was built as a part of the Washington Aqueduct system. To all intents and purposes this is a public road, but the Commissioners can not expend public funds in maintaining and lighting it and furnishing the property owners abutting upon it sewer and water facilities to which they are entitled.

ROCK CREEK PARK.

The appropriation for Rock Creek Park for the year was $15,000. This sum did not permit of any extensive improvements, but about 12 miles of bridle paths were constructed, and the existing macadam roads were repaired, sprinkled, and maintained. Work was begun on a concrete arch on Ross road, to take the place of an old rustic trestle which had been constructed by the chain gang for temporary use.

That this park is being greatly used by the public was demonstrated by a count made of vehicles, equestrians, and pedestrians. The park is used more by persons driving than by pedestrians. The reason for this is that no car line runs directly to the park limits, and its beauty is not fully appreciated. Efforts are being made to attract the general public by the construction of paths for the exclusive use of pedestrians, similar to those already constructed for horseback riders, and shelters will also be provided.

A new approach from Sixteenth street along Piney Branch to the park boundary was acquired by condemnation proceedings. This will make a fine entrance from Sixteenth street, which is the boulevard leading to the park. Additional land for park purposes along Massachusetts avenue and between the eastern boundary and the western limits of Sixteenth street, for which bills were introduced in the last Congress, should be acquired before the land rises so in value as to make its purchase prohibitive.

PUBLIC GOLF COURSE.

In line with the efforts of the board of control of Rock Creek Park to increase the popularity of the park is the construction of a golf course at the eastern edge of the park, about opposite Brightwood. A course of nine holes has been about completed, and it is the intention to enlarge the course to eighteen holes. The work is being done by the chain gang, which makes its cost very small. The course selected is believed to be a good one, and the only work necessary was clearing, plowing, a small amount of grading, and the sowing of cowpeas and grass. No appropriation is available for the construction of a club house, and it is the intention that such a house be constructed on adjacent private grounds at private expense. Legislation is asked of Congress to establish a schedule of fees for the use of the course, such fees to be nominal and only sufficient to pay for the services of the necessary caretakers. Such golf courses exist in other cities and are very popular. An increase is also asked to the general appropriation for the care of the park, though this increase is apparent only, as it is estimated that nearly the amount of the increase asked will be returned in fees.

PARKS.

The Commissioners again invite attention to the desirability of extending the park system in the built-up portions of the District similar to that existing within the city limits. Certain portions of the District which are practically parts of the city, but which lie outside of the old city boundary, have been built up without provision being made for parks. On account of the value of the land it would be an expensive measure to provide parks in such sections at this time, but it is believed that in the newer sections parks should be purchased or condemned before the property is built upon. The beauty of the city of Washington is dependent to a great extent upon its trees and parks, and the present admirable system of parks within the city limits should be extended throughout the District. This should be done in a systematic manner.

TRANSFER OF CONTROL OF PARKS TO THE COMMISSIONERS.

The Commissioners recommend the transfer to their jurisdiction of the system of parks in the city of Washington, exclusive of the grounds around the White House and the Government buildings. Jurisdiction over these parks is now placed by law under the Chief of Engineers of the United States Army, and the Commissioners recommend either that the entire control be transferred to them or that a board of control, such as that which has charge of Rock Creek Park, consisting of the Commissioners of the District of Columbia and the Chief of Engineers of the United States Army, be given entire control of the park system, with the exceptions above noted. The cost of maintaining these parks is shared by the citizens of the District of Columbia, and it seems but proper that the Commissioners, who are the executive authorities of the District, and responsible for the collection and disbursement of money for municipal purposes, should have charge of the parks as well as other municipal establish-

ments. Under the present arrangement, Congress appropriates money for the maintenance of these parks, one-half of which is charged against the citizens of the District of Columbia, and the Commissioners have no opportunity to make any recommendations as to such expenditures, although, in preparing their own estimates, they must take into consideration the amount of the revenues and provide for expenditures justified by such revenues. If the control of the parks were under the Commissioners their improvement could be considered in connection with other public improvements and the parks given their relative share of money available.

Very respectfully,

HENRY B. F. MACFARLAND,
HENRY L. WEST,
JAY J. MORROW,
Commissioners of the District of Columbia.

REPORT OF THE OPERATIONS OF THE ENGINEER DEPARTMENT.

SURFACE DIVISION.

Capt. EDWARD M. MARKHAM,

Corps of Engineers, United States Army, Assistant to the Engineer Commissioner, in charge.

HIGHWAYS (STREETS, ROADS, BRIDGES, ETC.)	C. B. HUNT, *Engineer of Highways.*
Sidewalks and alleys	H. N. MOSS, *Superintendent of Streets.*
Construction and maintenance of county roads	L. R. GRABILL, *Superintendent of Roads.*
Construction and care of bridges	W. J. DOUGLAS, *Engineer of Bridges.*
STREET EXTENSIONS	E. M. TALCOTT, *Assistant Engineer.*
ASPHALT AND CEMENT	J. O. HARGROVE, *Inspector of Asphalt and Cements.*
SURVEYOR'S OFFICE	W. P. RICHARDS, *Surveyor, District of Columbia.*
PARKING COMMISSION	TRUEMAN LANHAM, *Superintendent of Parking.*
GRADE DAMAGES	A. L. SINCLAIR, *Special Assistant Counsel.*

REPORT OF ASSISTANT IN CHARGE.

OFFICE OF THE ENGINEER COMMISSIONER
OF THE DISTRICT OF COLUMBIA,
Washington, October 21, 1907.

CAPTAIN: I have the honor to transmit herewith annual reports, giving in detail the operations during the fiscal year ended June 30, 1907, of the surface division, the surveyor's office, the parking commission, the office of street extensions, the office of the inspector of asphalt and cements, and the special assistant corporation counsel in charge of grade damages. In the report of the surface division is included the reports of the engineer of highways, the superintendent of streets, the superintendent of roads, and the engineer of bridges.

Very respectfully,

E. M. MARKHAM,
Captain, Corps of Engineers, U. S. Army,
Assistant to the Engineer Commissioner.

Capt. JAY J. MORROW,
Corps of Engineers, U. S. Army,
Engineer Commissioner, D. C.

REPORT OF THE ENGINEER OF HIGHWAYS.

WASHINGTON, D. C., *October 15, 1907.*

SIR: I have the honor to submit the following report of the operations of the surface division of the engineer department of the District of Columbia for the fiscal year ended June 30, 1907:

The total amount of funds appropriated by Congress and deposited by corporations and others for disbursement by the surface division during the fiscal year ended June 30, 1907, aggregated about $1,540,000, of which about $220,000 was for paving sidewalks and alleys in all parts of the District of Columbia; $390,000 was for paving new

streets and for repairing and repaving old ones within the city limits; about $190,000 was for the construction and repair of suburban streets and county roads; about $540,000 for the maintenance and construction of all bridges in the District; about $50,000 in connection with the elimination of grade crossings; while approximately $150,000 was spent in repairing pavements disturbed by excavations on account of other branches of the District government and by various corporations and plumbers.

Summary statement of work done under appropriation for improvements and repairs for the year ending June 30, 1907.

Character of work.	Streets and avenues.	County roads and suburban streets.	Elimination of grade crossings.	Repairs to asphalt pavements.	Total.
Sheet asphalt paving.....square yards..	3,079.74	.....	2,974.29	27,589.50	33,643.53
Sheet asphalt resurface.....do....	159.03	.....	36.00	56,110.35	56,305.38
Vitrified-block gutters.....do....	369.77	2,597.23	342.94	11,089.64	14,399.58
Asphalt block paving.....do....	5,248.91	10,379.97	.....	.....	15,628.88
Macadam roadway.....do....	.....	47,300.00	.....	.....	47,300.00
Cobble gutters.....do....	.....	8,208.60	.....	.....	8,208.60
Ordinary grading.....cubic yards..	1,533.00	103,869.00	742.00	2,289.00	108,433.00
Macadam grading.....do....	254.00	2,079.00	.....	.....	2,333.00
Old cobble removed.....square yards..	3,563.00	3,215.00	202.00	.....	6,980.00
Old curb removed.....linear feet..	1,876.00	382.00	61.00	24,258.81	26,577.81
Macadam material.....cubic yards..	.....	7,960.34	.....	.....	7,960.34
Curb set.....linear feet..	2,497.63	2,868.00	863.92	24,493.18	30,722.73
Curb reset.....do....	647.01	2,904.48	71.37	11,468.78	15,091.64
Old pavement removed.....cubic yards..	.....	.....	.....	5,671.06	5,671.06

The principal items of work under the appropriation for "Repairs to roads" were:

Resurfacing with new trap macadam—Brightwood avenue at several points; Twentieth street from Klingle road to Piney Branch; Military road from Rock Creek to Daniel's road; Bladensburg road from end of asphalt to Mount Olivet Cemetery; Canal road east of New Cut road; Grant road from Wisconsin avenue to Albemarle street; Wisconsin avenue northward from Tenleytown; Pierce Mill road from Rock Creek Park eastward; Connecticut avenue, extended, from Pierce Mill road to Chapell road.

Resurfacing with gravel—Piney Branch road north of Webster street; Blair road from Piney Branch road to District line.

The following is a list of tables appended with this report:

Table A.—Street railways in the District of Columbia, July 1, 1907.
B and C.—Statement of character and extent of street pavements.
D.—Descriptive list of street pavements.
E.—Schedules of work on streets and avenues and county roads and suburban streets.
F.—Repairs to asphalt and concrete pavements.
G.—Work done at cost of railway companies.
H.—Work done by day labor under appropriation for "Current repairs to streets, avenues, and alleys."
I.—Regular permit work.
K.—Assessment work.
L.—Replacing and repairing sidewalks and curbs around public reservations.
M.—Miscellaneous work.
N.—Whole-cost work.
O.—Repairs to cuts made by plumbers and others.
P.—Grading by chain gang.

The types of sidewalk and alley pavements laid were unchanged from recent years' practice—cement for sidewalks and asphalt and vitrified blocks for alleys. The curb delivered during the year was of Maine granite, a distinctly better quality of stone than that secured for some years past, and the superior results justify a moderate increase in the price paid when such material can thereby be secured.

Due to failure to secure bids for laying new asphalt pavements within the limit of $1.65 per square yard, a number of streets proposed to be paved with asphalt were transferred to the contractor for laying asphalt blocks and, as a result of this very considerable addition to his work, the completion of his contract was somewhat delayed. Otherwise the progress of the work was quite satisfactory. About 30,000 cubic yards of trap macadam from the District's quarry at Dickinson, Md., was used on the roads during the year with the best results.

The resurfacing of Pennsylvania avenue northwest, from Sixth street to Fifteenth street, was started in the latter part of the year and will be completed under the 1908 appropriation. This work involved the adjustment of the tracks of the Capital Traction Company to permit proper drainage grade to be given to the street at large expense, but the results are confidently expected to justify the treatment thought necessary.

ELIMINATION OF GRADE CROSSINGS.

Work on the project for elimination of grade crossings and the construction of the Union Station has continued with fair progress during the past year.

To date about 95 per cent of the total work on the area, including the station, terminals and yards north of Florida avenue, has been completed.

Ninety per cent of the entire grading and with the exception of some bridge work the entire masonry work is completed and about 95 per cent of the work on the station building.

About 90 per cent of the work on the express building at Second and H streets northeast has been done, and about the same amount on the power house at First and I streets northeast. Of the new trackage within the limits of the terminal viaduct and yards north of Florida avenue, including Montello-Rhode Island avenue Y connection, about 95 per cent is laid.

The Philadelphia, Baltimore and Washington Railroad's Florida avenue to Magruder connection is entirely completed, including the bridges over Bladensburg road and the Anacostia River, with the exception of a small piece of track closure where the new line crosses the Washington branch of the Baltimore and Ohio Railroad tracks at Montello. This track closure will be made this fall.

The Baltimore and Ohio Company's Y connection between Montello and Rhode Island avenue is completed and in use. The Rhode Island avenue bridge is completed and the New York avenue bridge will be completed about the latter part of the year.

Work has been undertaken on the foundations for the T street bridge, and most of the work has been done on the shops, roundhouse, and other buildings at Ivy City.

The First street tunnel has been completed and it is expected that it will be in use about the 1st of December of this year.

It is expected that the Sixth street station of the Philadelphia, Baltimore and Washington Railroad will be abandoned in December, 1907, and use made of the new Union Station.

The Virginia avenue tunnel is completed and in use. The masonry walls on the Virginia avenue viaduct are completed between South Capitol and Four-and-a-half streets, and the bridges over South Capitol, First street, Delaware avenue, Second, Third, and Four-and-a-half streets, Seventh street, and Water street are completed.

The freight station on the south side of Virginia avenue between Third and Four-and-a-half streets is in use, and work in progress on the site of the freight depot planned on the north side of Virginia avenue between Four-and-a-half and Seventh streets. On the low-grade track and yards on Maryland avenue southwest, between Ninth and Fourteenth streets, work is well advanced, the entire north wall being completed. The underground bridges at Ninth, Tenth, Eleventh, and Twelfth streets will be completed before next spring. It is expected that the new station will be in use about the 1st of December, which will permit of the completion of work in south Washington by the discontinuance of use and the removal of trackage to the Sixth street station. Plans have been approved for and work is in progress on the construction of the substation at Fourteenth and Water streets southwest, required to be constructed by section 12 of the act of February 28, 1903.

Good progress has been made on the work of grade changes in the streets, changed in line and grade, or newly created under the act providing for the elimination of grade crossings.

In the plaza and adjacent about 600,000 cubic yards of earth fill has been placed to make changes required, there still remaining about 160,000 cubic yards to complete the work, which it is expected will be in place in the spring of 1908, after the tracks of the Baltimore and Ohio Railroad across Massachusetts avenue have been removed. On the line of Delaware avenue northeast, between the station and Florida avenue, the streets changed in grade on account of the terminal location have been generally graded and restored, very little work remaining to be done.

In the plaza and adjacent streets considerable work remains to be done.

On the line of Virginia avenue southwest, between Second and Eighth streets, work is completed.

On Virginia avenue southwest some little of the city's portion of the work has been undertaken and it is expected to complete a large part of it by June next.

All work under this office in connection with the elimination of grade crossings has been under the charge of Assistant Engineer Charles Fernald.

RECOMMENDATIONS.

I renew my recommendation of past years that the appropriations yearly made for "Construction of county roads" be aggregated into a single appropriation, to be expended on the roads named in the bill in a manner analogous to the operation of the schedule for paving streets within the city. About a score of items for suburban street work are yearly segregated in an anomalous manner. They should be disbursed and accounted for as a single fund. The accounting office concurs in this recommendation.

I renew my recommendation made last year that collections of special assessments for improvement under assessment and permit work be credited in equal parts to the United States and the District of Columbia instead of to the current appropriation, and that appropriations as made by Congress be increased by the total of these collections, as shown by past experience. The amount to be expended would thus be known in advance not only by Congress, but by the office charged with the execution of the work under the appropriation.

My acknowledgments are due to the employees of the surface division for the work accomplished by the office during the year.

I respectfully transmit herewith the reports of the superintendent of streets, the superintendent of county roads, and the engineer of bridges.

Very respectfully,

C. B. HUNT,
Engineer of Highways, District of Columbia.

Capt. EDWARD M. MARKHAM,
Corps of Engineers, U. S. Army,
Assistant to Engineer Commissioner, District of Columbia.

REPORT OF THE SUPERINTENDENT OF STREETS.

WASHINGTON, D. C., *August 29, 1907.*

SIR: I have the honor to submit herewith the annual report of the operations under my charge for the fiscal year ended June 30, 1907.

Table H is a summary of work done by day labor under the appropriation for "Current repairs to streets, avenues, and alleys." The cost of such work was $25,099.53, including the repairs to 3,460 dangerous holes. One-third of this amount was sidewalk and alley work, and the other two-thirds repairs to street roadways.

Table I is a list of work done under the permit system, wherein property owners requested the improvement and paid one half the cost, the District paying the other half. The total cost of this work was $12,431.58.

Table K is a list of work done under the assessment system. One-half of the cost of such work is charged against the abutting property. The total cost was $159,308.18.

Table L is a list of work paid for from the appropriation for "Replacing sidewalks and curbs around public reservations and municipal buildings." The amount expended under this class of work was $9,346.65.

Very respectfully,

H. N. MOSS, *Superintendent of Streets.*

The ENGINEER OF HIGHWAYS.

REPORT OF SUPERINTENDENT OF ROADS.

WASHINGTON, *September 17, 1907.*

SIR: I have the honor to submit herewith the report of the operations of the county road division during the fiscal year ended June 30, 1907.

Very respectfully,

L. R. GRABILL, *Superintendent of Roads.*

The ENGINEER OF HIGHWAYS.

Repairs to county roads, appropriation 1907.

Job No.	Location.	Cost.
	SECTION 1.	
4012	Canal road from present terminus of new construction westward	$4,489.93
4013	Intersection of Fessenden street and Connecticut avenue	35.25
4014	Grant road from Wisconsin avenue to Albemarle street	1,114.00
4042	Rittenhouse street and Western avenue from Chevy Chase circle to Broad Branch road	22.12
4052	Wisconsin avenue	2,114.12
4078	Pierce Mill road between Connecticut and Wisconsin avenues	123.50
4116	Grant road and Connecticut avenue	374.33
4190	Woodley road north end of Connecticut avenue bridge	76.82
4192	Thirty-eighth street between Woodley road and Massachusetts avenue	79.11
4193	Connecticut avenue extended	4,595.88
		13,025.06
	Dangerous holes and minor repairs	7,582.16
	Total	20,607.22
	SECTION 2.	
4006	Brightwood avenue throughout its entire length	901.82
4007	Twentieth street from Klingle road to Piney Branch road	979.59
4008	Military road between Rock Creek and Daniel road	2,483.43
4044	Kenesaw avenue, entrance to Zoo Park	781.22
4045	Varnum street between Seventh and Eighth streets, Petworth	7.50
4053	Allison street between Brightwood and Kansas avenues	7.50
4061	Rock Creek Church road	449.37
4064	Quarry road from Columbia road to Zoo	292.25
4077	U street ne. between Rhode Island avenue and Lincoln road	21.00
4079	Piney Branch and Fourteenth street roads	313.63
4080	Newton street	101.13
4088	Irving street between Warder street and Brightwood avenue	47.25
4089	Sixth street nw. between Pomeroy and College streets, and Trumbull street between Brightwood avenue and Sixth street	4.13
4090	Pierce Mill road between bridge and Piney Branch	1,566.87
4156	Piney Branch road throughout its entire length	954.18
4157	Fourteenth street nw. between Park road and Monroe street	769.05
4158	Both sides of Sixteenth street extended (parking space)	183.36
4123	Ontario road between Florida avenue and Kalorama road	218.87
4124	Kalorama road between Sixteenth and Champlain streets nw	237.69
4166	U, V, W, and Adams streets	472.06
4167	Blair road between District line and Rittenhouse street	1,213.77
4178	Euclid street between Sherman and Brightwood avenues	215.38
4186	Center street between Piney Branch road and Newton street	457.63
4188	Park avenue, Brightwood	130.25
4189	West side of Seventeenth street north of Park road	129.18
4031	Grant street	75.50
		13,013.61
	Dangerous holes and minor repairs	18,512.48
	Total	31,526.09
	SECTION 3.	
4009	Twenty-fourth street between Douglas and Evarts streets, Langdon	468.39
4010	Bladensburg road from end of present asphalt to pavement of Mount Olivet road	1,819.52
4030	Monticello avenue from Florida avenue to Mount Olivet road	544.44
4033	Thirteenth street ne. between Rhode Island avenue and Franklin street	9.03
4062	Sargent road	123.10
4063	Queens Chapel road north of Bunker Hill road	38.15
4081	Northeast corner of Twelfth and Evarts streets ne	63.10
4149	Rhode Island avenue ne., both sides of Baltimore and Ohio Railroad	606.98
4165	Bunker Hill road	656.71
4169	Harewood road between Michigan avenue and Rock Creek Church road	556.47
4187	Randolph place between First and Second streets	356.19
4210	South side of Rhode Island avenue and U street ne. between North Capitol street and Lincoln road	34.00
		5,276.08
	Dangerous holes and minor repairs	9,287.94
	Total	14,564.02
	SECTION 4.	
4011	Central avenue	412.25
4022	Sumner street as far as B street	216.45
4034	Anacostia road north of Pennsylvania avenue se	423.85
4060	Sheriff road	228.05
4097	Twenty-third street between Minnesota avenue and Naylor road	397.81
		1,678.41
	Dangerous holes and minor repairs	9,409.74
	Total	11,088.15

RECAPITULATION.

Section 1	$20,607.22
Section 2	31,526.09
Section 3	14,564.02
Section 4	11,088.15
Total	77,785.48
Miscellaneous labor	116.05
Blacksmithing	424.14
Purchase and repair of tools	545.79
Stone breaking	56.63
Material purchased for general use	1,952.08
Stone and hauling	9,117.05
Balance	2.78
Total	90,000.00

REPORT OF THE ENGINEER OF BRIDGES.

WASHINGTON, D. C., *July 1, 1907.*

SIR: I have the honor to submit the following report for the fiscal year ended June 30, 1907.

The expenditures under the construction and repair of bridges are as follows:

Expenditures, construction, and repairs to bridges, appropriation 1907.

Job No.	Bridge No.	Character of work.	Cost.
3501	30	Laying new floor	$1,365.15
3505	38	Refloor	329.27
3508	a 42	Minor repairs	211.89
3511	407	....do	98.99
3513	a 622	Repair	308.57
3517	61	Rebuild with concrete	1,002.75
3518	64	....do	619.50
3522	8	....do	462.75
		Extra work on bridges 61, 64, 8	1,029.46
3524	35	Refloor	302.99
3531	34	Repair sidewalk	203.17
3532	27	....do	603.61
3533	30	....do	955.79
3546	a 241	Rebuilding bench walls	117.12
3552	.....	Painting K street bridge	75.75
3502	35	Minor repairs	35.50
3503	34	....do	7.75
3545	.....	Drill holes, Ross road bridge	51.00
3550	.....	Test pits on line of Monroe street	60.75
	7	Lumber purchased	4,368.32
		Minor repairs to various bridges	1,983.58
		Inspection and salaries	1,800.93
		Miscellaneous	1,688.90
		Unexpended balance	33.24
		Total	17,834.39

a Culvert.

Amount appropriated	$14,000.00
Repayment	804.79
Repayment	3,029.60
	17,834.39

The Piney Branch bridge was completed, consuming the entire appropriation of $50,000.

The contract for the Connecticut avenue bridge proper was completed, leaving a balance of $11,827.08 out of the total appropriation of $850,000.

The masonry of the Anacostia bridge was completed, leaving a balance of $178,804.92 for the superstructure and north approach.

Under the appropriation for the south approach to the Anacostia bridge, plans were made for a concrete steel bridge over the Baltimore and Ohio Railroad track at an

estimated cost of $17,000. The condemnation proceedings were begun for the extension of Monroe street. Balance, $53,948.48.

K street bridge was practically completed with the exception of the approaches and lamps, leaving a balance of $6,986.15 out of a total appropriation of $38,000.

New York avenue bridge crossing the Baltimore and Ohio Railroad tracks has abutments complete, also steel work, and the contractors are proceeding with the work of covering the steel with concrete.

The masonry of the T street bridge is complete and the detail drawings of the superstructure are being executed.

Plans for the survey of the river front, Seventh street channel, are complete. Balance in said appropriation, $172.24.

All bridges are in good condition with the exception of the Anacostia bridge.

In connection with the Connecticut avenue bridge I have to call your attention to the fact of the urgent necessity of buying additional land on either side of the bridge at both the north and south abutments. The acquiring of this abutting land is vital to the appearance of the structure.

Plans were drawn for a three-hinge concrete arch for Rock Creek Park on the line of Ross road at an estimated cost of $9,000.

Very respectfully,

W. J. DOUGLAS,
Engineer of Bridges, District of Columbia.

The ENGINEER OF HIGHWAYS,
District of Columbia.

Statement showing number of employees temporarily required in connection with street, road, and bridge construction and repairs, and appropriations and deposits from which paid, during the fiscal year ended June 30, 1907.

Designation.	Number.	Rate.
Assistant engineers	3	1 at $5, 1 at $5.50, and 1 at $6.
Rodmen	3	$3.
Chainmen	4	3 at $2.25 and 1 at $3.
Draftsmen	3	1 at $2.50, 1 at $2.80, and 1 at 50 cents per hour.
Inspectors	21	1 at $2.50, 1 at $3, 14 at $4, 2 at $4.50, 2 at $5, and 1 at $7.
Overseer	1	$4.
Rollermen	2	$3.50.
Plumbers	5	$4.
Copyist	1	At $3 and $3.25.
Transitmen	2	1 at $3.50 and 1 at $4.

Appropriations from which paid.

Improvements and repairs, 1907	$9,739.85
Grade and improve—	
Massachusetts avenue	162.00
Connecticut avenue extended	88.00
Lincoln road, north of R street	28.00
Monroe street Fourteenth to Seventeenth	36.00
Shepherd and Eighth streets	46.00
Lanier place	44.00
Clifton street	24.00
Monroe and Thirteenth streets	80.00
Elimination of grade crossings	8,880.75
Connecticut avenue bridge	2,719.00
Piney Branch bridge	371.00
K street bridge	544.00
Anacostia bridge	5,138.00
Electrical department, street lighting	912.00
Total	28,812.60

TABLE A.—*Street railroads in operation in the District of Columbia July 1, 1907.*

Name of company.	Tracks in use owned by company.			
	Underground electric.		Overhead electric.	
	Double.	Single.	Double.	Single.
	Miles.	*Miles.*	*Miles.*	*Miles.*
Washington Traction and Electric Co.:				
Metropolitan R. R.	9.37	3.98	.....	.....
Columbia Rwy.	2.77	.....	4.12	0.89
City and Suburban Rwy. of Washington	4.06	2.36	5.58	.....
Brightwood Rwy.	.....	.....	5.93	.....
Georgetown and Tennallytown Rwy.	.....	.....	4.16	.....
Anacostia and Potomac River R. R.	7.35	.....	1.46	1.64
Washington and Great Falls Electric Rwy.	.....	.....	3.88	.....
Washington and Glen Echo R. R.	.....	.....	.10	.....
Capital Traction	15.29	3.26	3.57	.....
Baltimore and Washington Transit	.....	.....	.....	.....
Washington, Alexandria and Mount Vernon Electric Rwy.	.90	.33	.....	.....
Total	39.74	9.93	28.80	2.53

TABLES B AND C.—*Statement of character and extent of street pavements, June 30, 1907.*

Section.	Asphalt and coal tar.		Asphalt block.		Vitrified block.		Granite.	
	Square yards.	Miles.	Square yards.	Miles.	Square yards.	Miles.	Square yards.	Miles.
Northwest	1,777,292	81.66	33,609	1.97	18,630	0.68	135,426	6.92
Northeast	271,746	13.93	191,604	7.79	.....	.....	13,567	.89
Southeast	159,706	9.26	213,081	10.06	.....	.....	49,940	2.55
Southwest	157,023	8.63	52,697	2.66	3,005	.20	199,620	10.55
Georgetown	129,957	7.93	14,837	.65	780	.04	54,198	3.27
Suburban	302,634	16.85	53,781	3.13	.....	.....	31,713	1.70
Total	2,798,358	138.26	559,609	26.26	22,415	.92	484,464	25.88

Section.	Cobble.		Macadam.		Gravel and unimproved.		Total.	
	Square yards.	Miles.	Square yards.	Miles.	Square yards.	Miles.	Square yards.	Miles.
Northwest	68,504	2.92	47,645	2.97	73,004	4.00	2,154,110	101.12
Northeast	.....	.....	66,958	4.01	227,954	12.62	771,829	39.24
Southeast	12,641	.54	67,034	4.00	276,309	15.07	778,711	41.48
Southwest	87,873	3.78	34,472	2.00	128,889	7.75	663,579	35.57
Georgetown	15,943	.91	14,904	.84	24,301	1.42	254,920	15.06
Suburban	.....	.....	1,059,557	67.89	1,345,185	118.00	2,792,870	207.57
Total	184,961	8.15	1,290,570	81.79	2,075,642	158.86	7,416,019	440.04

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907.*

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
A ne., First to Second	Asp. H. B	1880	2,788		$0.02		$0.054	
A ne., Second to Fourth	do	1884	2,972	1906	.033			
A ne., Fourth to Seventh	Coal tar	1887	4,206	1900	.028			
A ne., Seventh to Ninth	Asp. block	1890	2,300					
A se., Second to Third	Asphalt	1881	1,724	1899	.048			
A se., Third to Sixth	Asp. block	1886	3,317					
A se., Sixth to Seventh	do	1887	2,391					
A se., Seventh to North Carolina ave	do	1894	3,043					
Acker, between Sixth and Seventh, E and F ne	do	1900	1,703					
Adams, Harrison to Jefferson	Gravel		2,500					
Adams Mill rd	Macadam	1904	3,100					
Albemarle, Grant road to Thirty-eighth	do	1899	2,666					
Albemarle, Thirty-eighth to Connecticut ave	Gravel	1900	8,700					
Anacostia rd., Pennsylvania ave. to Bennings rd	do		25,000					
Anacostia rd., Bennings rd. to District line	Macadam	1903						
Aqueduct street, Rock Creek to M	Coal tar	1877	2,346					
Arthur pl., First nw. to New Jersey ave., B and C	Asp. block	1887	1,366					
Arthur street (Anacostia), High to Grant	Gravel		2,500					
Avon (Georgetown), Cambridge to R	Asp. H. B	1893	1,590					Repairs, $1.64 since 1898.
B ne. and nw., Delaware ave. to First	Asp. block	1899	4,413					
B nw., First to Third	Asp. H. B	1903	3,333					
B nw., Sixth to Seventh	Granite block	1890	1,675					
B nw., Seventh to Ninth	Vitrified block	1894	2,374					
	Rubble rock	1873	3,000					
B nw., Ninth to Twelfth	Vitrified block	1899	7,018					
	Rubble rock	1873	7,000					
B nw., Twelfth to Seventeenth	Cobble and rubble	1874	25,875					
B nw., intersections Sixteenth and Fifteenth	Asp. H. B	1901	2,351					
B ne., Delaware ave. to First	Coal tar	1873	4,411	1880		$.022	.035	
B ne., First to Second	do	1874	3,091	1894	.018	.006	.023	
B ne., Second to Fourth	Asp. H. B	1884	2,556	1902	.02			
B ne., Fourth to Sixth	do	1885	2,016	1906	.017		.032	
B ne., Sixth to Massachusetts ave	Coal tar	1887	2,250	1902	.022			
B ne., Massachusetts ave. to Ninth	Asp. H. B	1896	1,066					
B ne., Ninth to Eleventh	do	1903	1,749					
B ne., Eleventh to Fourteenth	Gravel	1888	6,440					
B se., New Jersey ave. to Second	Coal tar	1873	3,766	1891	.029	.0188	.042	
B se., First to Second	Asp. H. B	1896	1,802	1896				700 yards for widening at Congressional Library.
B se., Second to Fifth	do	1881	3,810		.039		.067	
B se., Fifth to North Carolina ave	Coal tar	1887	3,154	1899	.05	.002	.006	
B se., North Carolina ave. to Eleventh	Asp. block	1891	4,578					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
B se., Eleventh to Nineteenth	Macadam	1891	15,405					
B sw., New Jersey ave. to First	Granite	1873	4,856					
B sw., First to Maryland ave	do	1884	5,305					
B sw., Sixth to Fourteenth	Asphalt	1879	13,283		$.013		$.025	
Bancroft pl., Connecticut ave. to Phelps pl	Asp. B. B	1894	1,918					Laid at expense of I. B. Wimer.
Bates rd	Gravel		10,000					
Belmont st., Fourteenth to Fifteenth	Asp. block	1889	483					
	Granite	1889	755					
	Asp. B. B	1889	1,099		.005			
Belmont rd., Eighteenth to Columbia rd	Asp. H. B	1899	1,584					
Belmont rd., Nineteenth to Waterside drive	Macadam		3,500					
Belt rd	Gravel		13,000					
	Granite	1900	5,971					
Bennings rd., Fifteenth eastward	Asp. H. B	1900	5,414		.038		.066	$65.96 repairs to Bennings bridge roadway, 1906–7.
Bennings rd. to Eastern Branch	Macadam	1900	10,000					
Bennings rd. to District line	do		35,000					
Biltmore, Columbia rd. to Nineteenth	Asp. H. B	1898	2,075					
Biltmore, Nineteenth to Twentieth	Asp. block	1901	2,755					
Bladensburg rd., Florida ave. north	Asp. H. B	1901	6,078					
Bladensburg rd. to District line	Macadam		45,000					
Blagden ave	do	1902	10,000					
Blagden Mill rd	Gravel		10,000					
Blair rd., Riggs rd. to District line	do		20,000					
Bowen and Suitland rds	do		10,000					
Brentwood rd	do		16,000					
	Macadam		12,000					
Brightwood ave., Florida ave. to W	Granite	1890	2,800					
Brightwood ave., W to Barry pl	do	1891	5,222					
Brightwood ave., Barry pl. to Euclid	do	1889	6,295					
Brightwood ave., Euclid to Columbia rd	do	1893	5,742					
Brightwood ave., Steuben to District line	Macadam		85,000					
Branch ave., Pennsylvania ave. extended to Bowen rd.	Gravel	1895	7,500					
Broad Branch rd	do		15,000					
	Macadam		10,000					
Brown, Newton to Oak	Gravel		2,000					
Bryant, First to Fourth	Macadam	1906	5,500					
Bryant, North Capitol to First	Asp. block	1904	2,435					
Bryant, east of First	do	1907	420					
C nw., Delaware ave. to First	Granite	1879	5,129					
C nw., First to New Jersey ave	Asp. H. B	1902	2,120					Replaced granite block laid in 1897.

C nw., Second to Third	....do	1903	1,585					Replaced granite block laid in 1882.
C nw., Third to Four-and-a-half	....do	1882	2,054	1904	.073			
C nw., Four-and-a-half to Seventh	....do	1885	4,604	1904	.044	.09	122	Resurfaced Four-and-a-half to Sixth, repairs since 1904 on 1,388 yards.
C nw., Seventh to Eighth (Market space)	Granite	1879	1,183					
Roadway front of Center Market	Vitrified brick	1904	2,766					
C nw., Ninth to Tenth	Belgian block	1872	1,656					
C nw., Tenth to Eleventh	Cobble	1872	6,917					
C nw., Twelfth to Fifteenth								
C nw., Eleventh to Twelfth	Asp. H. B	1897	903					
C ne., Delaware ave. to First	Granite	1886	2,080					
C ne., First to Third	....do	1882	4,199					
C ne., Third to Fourth	....do	1884	1,505					
C ne., Fourth to Sixth, north and south of Stanton square.	Asp. block	1886	4,478					
C ne., Sixth to Eighth	....do	1888	3,986					
C ne., Eighth to Tenth	....do	1891	2,180					
C ne., Tenth to Thirteenth	....do	1904	3,403					
C ne., Thirteenth to Tennessee ave	Gravel		1,100					
C se., New Jersey ave. to Fourth	Asp. block	1884	6,922					
C se., Fourth to Sixth	....do	1890	1,464					
C se., Sixth to Eleventh	....do	1904	4,181					
C se., Eleventh to Twelfth	Asp. H. B	1896	1,033					
C sw., New Jersey ave. to First	....do	1889	4,119					
C sw., First to Sixth	Coal tar	1887	8,214	1897	.064	.0129	.045	Old pavement removed, new pavement on hydraulic base.
C sw., Sixth to Seventh	Granite	1887	1,831					
C sw., Ninth to Twelfth	Asp. block	1885	3,253	1903				In 1903 the asphalt blocks between Thirteenth and Fourteenth were resurfaced with sheet asphalt. In 1907 between Ninth and Tenth and Twelfth and Thirteenth practically a new asphalt pavement was laid; asphalt block remains between Tenth and Twelfth.
C sw., Twelfth and Fourteenth	....do	1888	3,846	1907				
California, Columbia road to Phelps place	Asp. H. B	1904	2,461					
California, Phelps place to Massachusetts ave	Macadam	1905	4,480					
California ne								
Canal sw. (ne. side), B to D	Asp. H. B	1907						
Canal sw. (ne. side), D to E	Gravel		3,000					
Canal sw. (sw. side), B to C	Asp. block	1894	1,881					
Canal sw. (sw. side), C to E	Granite	1890	5,186					
Canal road	Macadam	1874	50,000					
Carroll se., between B and C, First and Second	Asp. H. B	1892	1,416					Total repairs, $6.95.
Cambridge, between Thirteenth and Avon, Q and R	....do	1893	1,247		.002			
Caroline, between Fifteenth and Sixteenth, T and U	Asp. B. B	1891	1,325		.008			
Cathedral ave	Macadam	1901	8,768					
Calvert, Eighteenth to Rock Creek	Asp. H. B	1900	5,365					
Calvert, Rock Creek to Connecticut ave	....do	1902	1,600					
Cedar, Eighteenth and Nineteenth, S and T	....do	1899	1,546					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Cedar, Piney Branch road to District line								
Central ave	Gravel		4,860					
Chappel road	do		4,000					
Channing, Twenty-second to Baltimore and Ohio R. R.	Macadam		1,500					
Chapin, Fourteenth to Fifteenth	Asp. block	1888	483					
	Granite	1889	674					
	Asp. B. B	1889	1,702					
Chain Bridge road	Gravel		8,000					
Chestnut (Anacostia)	do		1,500					
Chestnut (Takoma Park)	do	1891	2,340					
Champlain, Florida ave. to Columbia road	Macadam	1894	6,668					
Church, Fourteenth and Fifteenth, P and Q	Asp. B. B	1890	1,723		$0.024		$0.088	
Church, Fifteenth and Seventeenth, P and Q	Coal tar	1875	2,674	1904	.033	$1.904		
Church, Seventeenth and Eighteenth, P and Q	Asp. B. B	1892	2,271		.007			
Cleveland place, Twelfth and Thirteenth, W and Florida ave.	Asp. block	1886	1,297					
Clifton, Eleventh to Thirteenth	Macadam	1907	2,375	1907				
Clifton, Thirteenth to Fourteenth	Asp. B. B	1892			.0011		.005	
Columbia, Ninth and Tenth, O and Q	Coal tar	1873	2,683	1903	.034			
Columbia road, Brightwood to Sherman ave	Macadam	1893	2,712					
Columbia road, Sherman ave. to Thirteenth	Asp. H. B	1901	3,262					
Columbia road, Thirteenth to Fourteenth	Asp. block	1900	2,448					
Columbia road, Fourteenth to Sixteenth	Asp. H. B	1905						
Columbia road, Sixteenth to Eighteenth	do	1903	8,982					
Connecticut ave., H to Florida ave., including Dupont circle.	Coal tar	1873	24,846	[a] 1884				Resurfaced K to M.
				[a] 1887				Resurfaced M to Dupont circle.
				[a] 1895				East side Dupont circle and H to I.
				[a] 1897				Resurfaced Q to R.
				[a] 1903				Resurfaced Eighteenth to Dupont circle.
				[a] 1904				Resurfaced K to Rhode Island ave., circle to Q, and west side Dupont circle.
				[a] 1907		[b].01	.012	Resurfaced west side K to Jefferson place.
Connecticut ave., north side, Florida ave. to Leroy place.	Asp. H. B	1894	1,507		.018		.058	Laid at private expense.
Connecticut ave., intersection Florida ave	do	1894	140					

[a] All resurfaced prior to 1878.

[b] Since 1904.

Connecticut ave. and Columbia road, Florida ave. to Eighteenth.	....do	1897	11,011		.0011			
Connecticut ave., Leroy place to Wyoming	....do	1902	505					
Connecticut ave., Leroy place to Wyoming	....do	1903	3,353					
Connecticut ave., Wyoming to Kalorama	Asp. B. B	1891	1,150		.01			
Connecticut ave., north of Kalorama	....do	1887	1,000					
Connecticut ave., west of Rock Creek	Asp. H. B	1902	8,102					
Connecticut ave., Cathedral ave. to District line	Macadam		65,000					
Connecticut ave. between Pierce Mill and Chapel roads.	....do	1907	5,000					Macadam removed and replaced.
Conduit road	....do		60,000					
Corcoran, Thirteenth to Fourteenth, Q and R	Coal tar	1877	2,067		.04		.104	
Corcoran, Fourteenth to Fifteenth, Q and R	....do	1875	2,129	1895	.018			
Corcoran, Fifteenth to New Hampshire ave., Q and R.	Asp. H. B	1888	4,551		.029		.062	
Corcoran, New Hampshire ave. to Nineteenth, Q and R.	....do	1890	1,163		.013			
Crescent, Sixteenth westward	Asp. block	1902	966					
D nw., New Jersey ave. to Fourth	Coal tar	1875	3,818	1883		.065	.061	
D nw., Fourth to Fifth	Asp. H. B	1881	4,054		.003		.011	
D nw., Fourth to Fifth	Vitrified block	1897	205					
D nw., Fifth to Sixth	Asphalt	1889	328		.031		.036	Resurfaced on asphalt block.
D nw., Sixth to Eighth	Granite	1879						D st., Sixth to Tenth, laid with granite, 1879, 6,278 square yards between Eighth and Ninth has been surfaced with asphalt and between Ninth and Tenth granite removed.
D nw., Eighth to Ninth	Asp. on granite	1895	936					
D nw., Ninth to Tenth	Asp. H. B	1903	1,978					
D nw., Eleventh to Twelfth	....do	1899	1,374					
D nw., Twelfth to Fourteenth	Rubble	1873	1,500					
	Cobble	1873	2,105					Cobble laid in 1873.
D nw., Fourteenth to Fifteenth	Asp. on cobble	1895	1,675		.0023		.016	
D nw., Seventeenth to Eighteenth	Asp. H. B	1891	2,788					Total repairs, $9.10.
D nw., Eighteenth to Twentieth	Macadam	1901	2,902					
D ne., First to Massachusetts ave	Asp. B. B	1892	3,000		.0034		.02	
D ne., Massachusetts ave. to Maryland ave	Asp. H. B	1899	3,922					
D ne., Seventh to Ninth	....do	1897	1,641					
D ne., Ninth to Thirteenth	....do	1901	5,028					
D se., South Capitol to First	....do	1892	3,274		.0074		.029	
D se., First to Third	Asp. block	1889	4,394					
D se., Second to Third	Asp. H. B	1882	1,454	1905	.039			
D se., Third to Sixth	Asp. block	1890	3,860					
D se., Sixth to Seventh	....do	1897	1,798					
Do	....do	1900	323					
D se., Seventh to Ninth	....do	1896	2,064					
D se., Ninth to Kentucky ave	Gravel	1895	6,831					
D sw., South Capitol to First	Asp. B. B	1889	4,320		.01		.067	
D sw., First to Third	Asp. H. B	1891	2,905		.004		.031	
D sw., Third to Four-and-a-half	Coal tar	1887	2,363	1904	.058			
D sw., Four-and-a-half to Seventh	Rubble	1875	4,079					
D sw., Seventh to Fourteenth	Cobble	1873	6,736					
Decatur, Florida ave. to Massachusetts ave	Asp. block	1903	3,924					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Defrees, H and I, North Capitol and First nw	Asp. block	1886	1,967					
Delaware ave. ne., B to C	Granite	1879	2,056					
Delaware ave. sw., B to C	Asp. block	1903	2,658					
Delaware ave. sw., C to G	Macadam	1891	4,727					
Delaware ave. sw., G to K	do	1895	3,060					
Delaware ave. sw., K to N	Gravel		6,000					
Delaware ave. sw., O to P	Asp. block	1905	1,321					
Dent place, Thirtieth to Avon	Asp. II. B	1893	1,251					
Dent place, west of Thirty-second (s)	Asp. block	1904	2,785					
De Sales, Seventeenth to Connecticut ave	Coal tar	1875	2,493		$0.011		$0.018	
Douglas, Fourteenth to University place	Asp. II. B	1892	1,781		.0015		0	
Douglas, Twenty-fourth to B. and O. R. R	Macadam	1899	675					
Dumbarton, Twenty-seventh to Twenty-eighth	Asphalt	1899	893		0			
Dumbarton, Twenty-eighth to Thirty-second	Coal tar	1887	3,609		.015		.011	
Duncan place, D and E, Twelfth and Thirteenth ne.	Vitrified block	1892	1,360					
E nw., New Jersey ave. to Fourth	Asp. II. B	1879	4,932		.032		.024	
E nw., North Capitol to New York ave. (temporary)	Macadam	1906						Old pavement abandoned by work at terminal station.
E nw., Fifth to Eleventh	Asp. II. B	1878	9,313	1891		$0.012	.029	
E nw., Eleventh to Thirteenth	Granite	1879	2,487					
E nw., Thirteenth to Pennsylvania ave	Asp. II. B	1900	1,469					Originally laid with asphalt blocks, 1878.
E nw., Pennsylvania ave. to Fifteenth	Asphalt	1889	3,031		.0025		.0068	
E nw., Seventeenth to Eighteenth	Asp. block	1907	1,907					
E nw., Eighteenth to Nineteenth	Coal tar	1873	1,642	1875		.006	0	North side of Rawlins square.
E nw., Eighteenth to Nineteenth	Cobble	1873	1,475					South side of Rawlins square.
E nw., Nineteenth to Virginia ave	do	1872	4,831					
E nw., Twenty-third to Twenty-fourth	Asp. II. B	1902	1,059		0		0	
E ne, Second to Fourth	Asp. block	1893	3,231					
E ne., Fourth to Seventh	do	1904	4,882					
E ne., Seventh to Maryland ave	Gravel		2,100					
E se., South Capitol to Third	Asp. block	1896	5,603					
E se., Third to Fourth	do	1899	891					
E se., Fourth to Sixth	do	1903	3,830					
E se., Sixth to Seventh	do	1903	1,987					
E se., Seventh to Ninth	do	1904	1,811					
E se., Ninth to Tenth	Asp. II. B	1901	1,118		0		0	
E se., Tenth to Eleventh	do	1902	498		0		0	
E se., Eleventh to Thirteenth	do	1893	3,840		.002		.016	
E se., intersection of Thirteenth	do	1894	671		.002		.016	
E se., Thirteenth eastward	do	1897	2,363		0		0	
E se., extended to Fifteenth	do	1898	3,607					Total repairs, $4.92.

E se., Fifteenth to Seventeenth	Gravel	1893	3,000					
E sw., South Capitol to First	Asp. B. B	1890	3,104		.0082		.032	
E sw., Virginia ave. to Third	Asp. H. B	1897	1,580			.013	.013	Originally coal tar, laid in 1887.
E sw., Third to Four-and-a-half	Coal tar	1886	2,371	1902	.039	0	0	
E sw., Four-and-a-half to Seventh	Asp. H. B	1880	4,286					
E sw., Seventh to Thirteenth	do	1892	7,696		.0045		.018	
Eastern ave., Chestnut to Cedar	Gravel	1891	4,000					
East Capitol, First to Fourth and Fourth to Ninth, south side.	Asp. H. B	1879	10,511	1889-90	.033	.016	.075	
East Capitol, Fourth to Ninth, north side, and Ninth to Eleventh.	do	1883	6,989		.022		.041	
East Capitol, north side Lincoln square, Ninth to Eleventh.	Asp. on macadam	1894	3,200		0		0	Originally laid with Telford macadam, 1892.
East Capitol, south side Lincoln square, Ninth to Eleventh.	Asp. H. B	1899	3,738		0		0	
East Capitol, Thirteenth to Fifteenth	do	1902	5,496		0		0	
East Capitol, south side, Fourteenth to Fifteenth	do	1903	1,916		0		0	
Eckington place, Q to R	do	1891	1,560		.011		0	
Eckington place, Florida ave. to R	do	1904	4,054		0		0	
Eckington place, Florida ave. to R	Granite	1904	182					
Elm, Third to Fourth	Asp. H. B	1902	1,033		0		0	
Emerson place, E and F, Thirteenth and Fourteenth ne.	Asp. B. B	1892	1,949		.0013		0	
Euclid, Brightwood ave. to Thirteenth	Gravel	1898	6,493					
Euclid, Thirteenth to Fourteenth	Asp. block	1897	2,115					
Euclid, Fourteenth to University place	Asp. B. B	1891	1,666		.004		0	
Euclid, University place to Champlain	Macadam	1902, 1906	6,700					
Evarts, Twelfth to Thirteenth ne	do	1902	2,000					
Executive ave., south and west of Treasury	Asp. H. B	1894	5,601			.045	.083	Originally laid on bituminous base, 1889; relaid on hyd. base and underdrained, 1894. District paid for new base only.
F nw., North Capitol to New Jersey ave	Asp. B. B	1887	2,962	1900	.054			This pavement displaced by work on terminal station.
F nw., New Jersey ave. to Fourth	Asp. H. B	1879		1892	.021	.017	.017	Resurfaced New Jersey ave. to Second.
F nw., Fifth to Sixth, north side, and Sixth to Seventh, south side.	Coal tar	1877	1,742	1903		.017	.052	Resurfaced Sixth to Seventh.
F nw., Fifth to Sixth, south side, and Sixth to Seventh, north side.	Asphalt	1878	1,742	1889		.033	.054	Do.
F nw., Seventh to Ninth	do	1877	1,913	1891		.006		
F nw., Seventh to Ninth, north of tracks	Granite	1879	527					
F nw., Ninth to Twelfth	Coal tar	1877	4,257	1890		.015	.044	
F nw., Twelfth to Thirteenth	do	1877	2,103	1882, 1891		.012	.033	
F nw., Thirteenth to Fifteenth	do	1873	6,467	1882				Thirteenth to Fourteenth.
				1891				Fourteenth to Fifteenth.
				1898				Thirteenth to Fourteenth, south side.
F nw. Seventeenth to Eighteenth	Asphalt	1881	2,180		.022		.048	

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
F nw., Eighteenth to Twenty-second	Coal tar	1873	6,790	1897 1900	$0.007		$0.01	Nineteenth to Twenty-first. Eighteenth to Nineteenth and Twenty-first to Twenty-second.
F nw., Twenty-second to Twenty-third	Asp. H. B	1894	1,647		.0036			
F nw., Virginia ave. to New Hampshire ave.	Granite	1894	1,711					
	Vitrified block	1894	2,964					
F ne., Second to Third	Asp. B. B	1888		1901	.0385			
F ne., Third eastward	do	1897	1,308					
F ne., extended to Ninth	do	1898	8,057					
F ne., Ninth to Maryland ave	Asp. H. B	1900	3,024					
F ne., Thirteenth to Fourteenth	Macadam		3,000					
F se., First to Second	Asp. block	1900	2,466					
F sw., Half to Four-and-a-half	Granite	1882	6,777					
F sw., Four-and-a-half to Seventh	Coal tar	1874	4,315	1880		$0.013	.037	
F sw., Seventh to Tenth	Asp. block	1896	3,973					
Fairmont, Brightwood ave. to Thirteenth	Gravel		6,000					
Fairmont, Thirteenth to Fourteenth	Asp. block	1905	2,211					
Fairmont, Fourteenth to University place	do	1902	1,635					
Fairmont, Sixth to Brightwood ave	Macadam		1,000					
Fenton place ne., K and L, North Capitol and First	Gravel		2,000					
Fillmore, Harrison to Jefferson	do		4,700					
Flagler place, U to Adams	Asp. block	1901	3,270					
Florida ave. nw., North Capitol to First	Asp. H. B	1896	5,840					
Florida ave. nw., First to Fourth	do	1903	5,724					
Florida ave. nw., Fourth to New Jersey ave	Asp. B. B	1890	3,154		.01		.09	
Florida ave. nw., New Jersey ave. to Seventh	do	1888	7,208		.065		.204	
Florida ave. nw., Seventh to Ninth	Granite	1875	2,304					
Florida ave. nw., Ninth to Eleventh	Asp. H. B	1906	5,382					
Florida ave. nw., Eleventh to Fourteenth	Macadam	1875	8,500					
Florida ave. nw., Fourteenth to Fifteenth	Asp. H. B	1905	2,819					
Florida ave. nw., Fifteenth to Champlain	Macadam	1876	8,000					
Florida ave. nw., Champlain to Eighteenth	do	1875	3,700					
Florida ave. nw., Eighteenth to Connecticut ave	Asp. H. B	1895	2,435					
		1897	2,645					
Florida ave. nw., intersection S and Connecticut ave.	do	1895	1,906					
Florida ave. nw., Twenty-first to R	do	1905	2,235					
Florida ave. nw., Q to R	do	1895	2,402		.0014		.01	
Florida ave. nw., between P and Q	Asp. block	1907	458					
Florida ave. ne., North Capitol to New York ave	Asp. H. B	1899	6,428		.0013			
Florida ave. ne., Second to Fifth	do	1905	7,329					
Florida ave. ne., Fifth to M	Macadam	1897	3,400					
Florida ave. ne., M to Ninth	do	1896	6,314					

Florida ave. ne., Ninth to Fifteenth	Telford	1892	15,973					
Foxhall road	Gravel		5,000					
Franklin, Twenty-second to Queen's Chapel road	Macadam	1901	2,360					
Franklin, New Jersey ave. to Fifth	Gravel		2,000					
French, R and S, Ninth and Tenth	Asp. B. B	1889	1,692					
Fulton, Wisconsin ave. westward	Asphalt		6,000					
G nw., North Capitol to New Jersey ave	Coal tar	1887	3,802					
G nw., New Jersey ave. to Fourth	do	1872	2,050	1899 1889				Resurfaced New Jersey ave. to Second, 1899. Resurfaced New Jersey ave. to Third, 1889.
G nw., Fourth to Fifth	Asp. H. B	1894	1,530					Old pavement removed, new laid.
G nw., Fourth to Fifth	do	1905	620					Widening on south side.
G nw., Fifth to Seventh	do	1901	2,950					G street from New Jersey ave. to Fifteenth was originally laid with coal tar in 1872. The tracks of the Eckington and Soldiers' Home R. R. from Fourth to Fifteenth required the removal of a good deal of this pavement. In 1896 the roadway of G street between Tenth and Fourteenth streets was widened 10 feet, and and again between Ninth and Tenth and Fourteenth and Fifteenth in 1901, and between Fourth and Fifth on the south side in 1905. The widened portions were of course new pavements and laid on hydraulic base; for the balance of the street the old bituminous base remains with asphalt surface of the dates given.
G nw., Seventh to Ninth	do	1905	1,200					
G nw., Seventh to Ninth, south side	Coal tar	1872	654	1883				
G nw., Ninth to Tenth	Asp. H. B	1901	2,185					
G nw., Tenth to Eleventh	do	1891 1896	561 314					
G nw., Eleventh to Thirteenth	do	1891 1896	1,229 1,229	1907				
G nw., Thirteenth to Fourteenth	do	1899	2,239					
G nw Fourteenth to Fifteenth		1901	1,706					
G nw., Seventeenth to Twenty-second	Granite	1872	8,000	1892 1899 1899	.003		.0051	Nineteenth to Twenty-first. Twenty-first to Twenty-second. Seventeenth to Nineteenth.
G nw., Twenty-second to Twenty-seventh	do	1873	9,511					
G ne., First to Fourth	Asp. block	1902	4,178					
G ne., Fourth to Ninth	do	1905	6,369					
G ne., Maryland ave. to Fourteenth	Asp. H. B	1897	552					
G ne., Fourteenth to Fifteenth	do	1903	2,146					
G se., Third to Fourth	Asp. block	1903	1,251					
G se., Fourth to Eleventh	Granite	1894	5,300					
G se., Eleventh to Pennsylvania ave	Asp. block	1891	1,730					
G se., Thirteenth to Seventeenth	Macadam	1893	3,737					
G sw., South Capitol to Third	Granite	1891	6,517					
G sw., Third to Four-and-a-half	Asp. H. B	1898	2,476					Original bituminous base pavement 1888.
G sw., Four-and-a-half to Eighth	Coal tar	1875	5,933	1881		.017	.008	
G sw., Eighth to Water	do	1875	5,050	1881		.017	.008	
G les ne., Fifteenth to Seventeenth	Asp. block	1902	3,015					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Garfield, Wisconsin ave. westward	Macadam		4,000					
Girard nw., Brightwood ave. to Thirteenth	Gravel	1897	6,300					
Girard nw., Thirteenth to Fourteenth	Asp. block	1897	2,333					
Girard nw., Fourteenth to Fifteenth	Macadam		2,000					
Good Hope road	do		10,000					
Grace, Thirty-second to Thirty-third	Cobble							
Grant road	Gravel		13,700					
Grant place, G and H, Ninth and Tenth nw	Asp. H. B	1875	1,435					
Grant, Nichols ave. to Fillmore	Gravel		1,250					
Gresham place, Brightwood ave. to Sherman ave.	Macadam	1907	2,000					
H nw., North Capitol to First	Asp. H. B	1895	3,465		$0.021		$0.068	
H nw., First to Fourth	Granite	1879	4,872					
H nw., Third to Fourth, south of Massachusetts ave.	Asphalt	1883	784		.047		.12	
H nw., Fourth to Seventh	Coal tar	1887	6,381	1900	.046			
H nw., Seventh to Thirteenth	do	1872	9,067	1889 1907		$0.027	.025	Tenth to Thirteenth resurfaced. Seventh to Ninth resurfaced.
H nw., Thirteenth to Fourteenth	do	1872	2,144	1907	.047			
H nw., Fourteenth to Fifteenth	Asp. H. B	1884	1,735		.039		.089	
H nw., Fifteenth to Vermont ave	do	1896	2,160					New pavement, original coal tar laid 1874.
H nw., Vermont ave. to Connecticut ave	do	1904 1907	1,680 1,645					Originally laid with asphalt block in 1881.
H nw., Connecticut ave. to Pennsylvania ave	do	1884	5,451	1901				Resurfaced Seventeenth to Eighteenth.
H nw., Pennsylvania ave. to Twenty-second	Coal tar	1872	6,493	1880		.016	.015	
H nw., Twenty-second to Twenty-third	Asp. H. B	1898						
H nw., Twenty-third to Twenty-fifth	Cobble	1875	2,708					
H ne., North Capitol to First	Asp. H. B	1883	3,166	1891 1903		.069		North side. Both sides.
H ne., First to Third	do	1905	5,511					
H ne., north side, Third to Fifteenth	do	1883	11,373	1893		.024	.052	
H ne., south side, Third to Fifteenth	do	1890	11,912		.046		.107	
H ne., intersection Fifteenth and Maryland ave.	do	1902	1,667					
H sw., Half to First	Macadam	1901	1,611					
H sw., First to Third	Asp. B. B	1889	4,111		.06		.205	
H sw., Third to Four-and-a-half	Asp. H. B	1897	2,407	1897		.022		New original pavement, 1887, bituminous base.
H sw., Four-and-a-half to Seventh	do	1881	4,327		.016		.032	
H sw., Seventh to Ninth	do	1883	2,138		.039		.038	
H se., First to Second	Gravel	1888	1,848					
Hamilton road	do		25,000					
Harewood road	do		12,000					

Harrison, Navy-Yard Bridge eastward	Asp. H. B	1899	2,793					
	Vitrified block	1899	1,099					
Harrison, extended to Minnesota ave	Asp. H. B	1900	2,091					
Harrison, Minnesota ave eastward	Macadam	1905	8,300					
Harvard, Brightwood ave. to Thirteenth	Gravel	1898	6,113					
Harvard, Thirteenth to Fourteenth	Asp. block	1900	2,377					
Harvard, Fourteenth to Fifteenth	Gravel		2,000					
Heckman se., E and F, First and Second	Asp. block	1900	1,791					
High (Anacostia), Maple to Arthur	Gravel		2,000					
Hillyer, Q and R, Twentieth and Twenty-first	Asp. block	1884	1,552					
Holmead place, Park road to Spring road	Gravel		6,500					
Hopkins, O and P, Twentieth and Twenty-first	Asp. H. B	1892	749					
Howard place, Brightwood ave. to Sixth	Gravel	1891	952					
Hubbard place, Woodley road to Macomb	....do		2,500					
I nw., North Capitol to New Jersey ave	Coal tar	1875	4,557	1889		.0018		
I nw., Second to Fifth	Asphalt	1884	5,804	1905				Resurfaced Third to Fifth.
I nw., Fifth to Eighth	Asp. H. B	1880	4,210		.0205			
I nw., Eighth to Ninth	....do	1885	755		.0043		.017	
I nw., Ninth to Tenth	....do	1879			.0125			
I nw., Tenth to Eleventh	....do	1886			.028		.091	
I nw., Eleventh to Thirteenth	Coal tar	1872	3,700	1877		.018	.016	
I nw., Thirteenth to Fifteenth	Asp. H. B	1895	4,632		.0027		.011	Originally Neuchatel pavement. 1874.
I nw., Seventeenth to Eighteenth	....do	1880	2,672		.012		.0043	
I nw., Eighteenth to Pennsylvania ave	....do	1886	5,327	1907	.004		.0046	
I nw., Pennsylvania ave. to Twenty-third	Asp., Maca. base	1891	6,644		.0057			Laid on old macadam.
I nw., Twenty-third to New Hampshire ave	Asp. H. B	1897	2,248		.024		.0325	
I nw., New Hampshire avenue to Twenty-sixth	....do	1898	3,136		.0023			
I ne., North Capitol to First	Asp. B. B	1889	2,700		.022			
I ne., Sixth to Seventh	Macadam		2,200					
I ne., Seventh to Florida ave	Gravel		7,000					
I se., South Capitol to New Jersey ave	Trap rock		3,867					
I se., Second to Third	Macadam	1892	1,292					
I se., Third to Eighth	....do	1891	4,249					
I se., Eighth to Eleventh	Asp. H. B	1896	3,646		.001		.006	
I se., Eleventh to Thirteenth	Gravel		3,100					
I sw., Canal to First	Macadam	1901	1,424					
I sw., First to Third	Gravel	1889	3,530					
I sw., Third to Sixth	Asp. block	1896	4,850					
I sw., Sixth to Water	Gravel		2,600					
Illinois ave., Park road to Grant Circle	....do	1900	8,400					
Indiana ave., First to Third	Asp. H. B	1887	8,529		.014		.04	
Irving ne., Tenth to Thirteenth	Macadam	1900	3,775					
Irving, Brightwood ave. to Thirteenth	Gravel	1891	6,000					
Irving, Thirteenth to Fourteenth	Asp. block	1900	2,548					
Irving, Fourteenth to Zoo Park	Macadam	1900	10,000					
Jackson square H and Q, Sixteenth and Seventeenth	Coal tar	1872	2,315	1880		.017		
Jackson ne., Twelfth to Thirteenth	Macadam		2,000					
Jackson se., Nichols to Taylor	Gravel		7,500					
Jefferson, K to M, Georgetown	Cobble	1874	2,839					
Jefferson, Nichols ave. to Taylor	Gravel		7,500					
Jefferson place	Asp. block	1884	1,393					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Jewett nw., Connecticut ave. to Zoo entrance	Macadam	1899	850					
Jewett nw., Wisconsin ave. to Tunlaw road	do	1902 1903	12,000					
Johnson nw., R and S, Fourteenth and Fifteenth	Asp. B. B	1889	1,446		$0.0045		$0.026	
K nw., North Capitol to First	Asp. H. B	1899	4,537					
K nw., First to Third	Asp. cobble H. B	1894	3,894					
K nw., Third to Seventh	Coal tar	1874	7,310	1889		$0.02	.068	Resurfaced Fifth to Seventh.
	Vitrified block	1894						
K nw., Seventh to Ninth, north side Mount Vernon square.	Asp. H. B	1906	2,016					Original 1873; resurfaced 1885; new 1906.
K nw., Seventh to Ninth, south side Mount Vernon square.	do	1895	2,228					Original 1873; resurfaced 1887 and 1895.
		1903	965					Widening and resurfacing north of railroad tracks.
				1889				Resurfaced Seventeenth to Connecticut ave.
				1892				Resurfaced Tenth to Twelfth and Fifteenth to Eighteenth.
K nw., Ninth to Eighteenth	Coal tar	1875	27,551	1895				Resurfaced Fourteenth to Fifteenth.
				1896				Resurfaced Twelfth to Fourteenth.
				1898		.0047	.0061	Resurfaced Ninth to Tenth.
K nw., Eighteenth to Twenty-third	Asp. H. B	1880	11,671		.016			
K nw., Twenty-third to Rock Creek	Seneca, trap and granite.	1874	12,517					
K nw., Rock Creek to Aqueduct Bridge	Granite	1873 1875	18,021					
K ne., North Capitol to First	Asp. B. B	1889	4,498		.005		.049	
K ne., First to Second	Asp. H. B	1906	3,490					
K ne., Second to Seventh	Gravel		11,500					
K ne., Eleventh to Twelfth	Macadam		1,475					
K se., Second to South Capitol	do	1901	6,000					
K se., Second to Sixth	Gravel		3,500					
K se., Virginia ave. to Fourteenth	do		2,760					
K sw., South Capitol to First	Granite	1894	1,706					
K sw., First to Four-and-a-half	Asp. H. B	1904	4,960					
K sw., Four-and-a-half to Water	Macadam	1890	2,971					
Kalorama road, Eighteenth to Columbia road	Asp. block	1900	2,313					
Kalorama road, Columbia road to Nineteenth	do	1907	408					
Kalorama road, west of Nineteenth	Asp. B. B	1887	4,600					
Kansas ave., Brightwood ave. to Webster	Gravel	1900	3,500					

Kansas ave., Webster to Allison	Macadam	1904	1,602					
Kearney ne., Tenth to Twelfth	Gravel		1,000					
Kentucky ave. se., East Capitol to B	do		3,775					
Kenyon, Brightwood ave. to Thirteenth	do		6,000					
Kenyon, Thirteenth to Fourteenth	Asp. H. B	1900	2,694					
Kilbourne place								
Kingman place, Thirteenth and Fourteenth, P and Q	Asp. B. B	1889	1,699		.024		.071	
Klingle road, Park road to Rock Creek	Macadam		4,877					
Klingle road, Rock Creek to	Gravel		8,000					
L nw., North Capitol to New Jersey ave	Asp. H. B	1890	4,643		.021		.06	
L nw., New Jersey ave. to Fourth	Coal tar	1877	1,885					
L nw., Fourth to Fifth	Granite	1877	2,665					
L nw., Fifth to Sixth	Coal tar	1877	846					
L nw., Sixth to Eighth	Asp. H. B	1883	2,645		.043		.041	
L nw., Eighth to Seventeenth	Coal tar	1877	13,130	1904 1897 1891 1889				Resurfaced Eighth to Eleventh. Resurfaced Twelfth to Fourteenth. Resurfaced Fourteenth to Sixteenth and Sixteenth to Seventeenth. Resurfaced Connecticut ave. to Twentieth.
L nw., Seventeenth to Twentieth	do	1877	7,600	1887 1902 1904	.042		.038	Resurfaced E and W of Connecticut ave. Resurfaced New Hampshire ave. to Twenty-fourth. Resurfaced Twenty-fourth to Twenty-fifth.
L nw., Twentieth to Twenty-fifth	Asp. H. B	1883	8,141					
L nw., Pennsylvania ave. to Twenty-sixth	do	1884	483		.691		.09	
L nw., Twenty-sixth to Twenty-seventh	do	1889	1,179		.0027			
L ne., North Capitol to First and Second to Eighth	Macadam	1899	11,500					
L ne., First to Second	Asp. H. B	1905	2,700					
L se., South Capitol to Second	Macadam	1901	6,000					
L se., Second to Fourth	Gravel		2,300					
L se., Fourth to Eighth	do	1897	6,030					
L sw., South Capitol to Four-and-a-half	do		7,000					
L sw., Four-and-a-half to Water	Macadam	1889	4,332					
Lamont, School to Seventeenth	do		3,000					
Lamont, Seventeenth to Eighteenth	do		2,500					
Lanier place, Ontario to Adams Mill road	do	1906	3,000					
Leroy place, Connecticut ave. to Phelps place	Asp. H. B	1895	1,706					
Lawrence, Tenth to Thirteenth ne	Gravel		3,000					
Linden, G and H, Twelfth and Thirteenth ne	Macadam		1,400					
Lincoln road, T to V	do	1907	3,100					
Lincoln road	Gravel and macadam		30,000					
Livingston road	Gravel		12,000					
Longfellow, Brightwood ave. to Fifth	Macadam	1900	8,416					
Louisiana ave. intersection C and Seventh	Vitrified block	1900	384					
	Asp. H. B	1900	2,702					
Louisiana ave. front of Opera House	Granite	1872	784					
Louisiana, Eighth to Ninth	do	1879	1,137					
Louisiana, Ninth to Tenth	do	1872	4,765					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Louisiana, Fifth to Seventh	Granite	1881	9,038					
	Asp. block	1904	1,615					
Lowell, Cleveland Park	Gravel		7,000					
M nw., North Capitol to First	Asp. H. B	1894	3,067		$0.009		$0.066	
M nw., First to New Jersey ave	....do	1890	2,597		.0055		.033	
M nw., New Jersey ave. to Sixth	....do	1880	5,564		.019		.042	
M nw., Sixth to Fourteenth	....do	1879	13,147	1895				Resurfaced Sixth to Seventh.
				1900				Resurfaced Tenth to Fourteenth.
				1902				Resurfaced Sixth to Seventh.
				1903				Resurfaced Ninth to Tenth.
M nw., Fourteenth to Sixteenth	....do	1881	4,573		.029		.075	
M nw., Sixteenth to Eighteenth	Coal tar	1873	5,851	1878	.028	$0.008	.022	
				1895				
M nw., Eighteenth to Twenty-first	Asp. H. B	1879	6,084		.03		.05	
M nw., Twenty-first to Twenty-sixth	....do	1907	9,172					Old pavement laid in 1882, removed 1907, had cost for repairs in last two years 14 to 18 cents per yard.
M nw., Twenty-sixth to Rock Creek	....do	1897	417		.02		.021	
M nw., Rock Creek to Twenty-eighth	Coal tar	1877	1,138	1905	.09			Resurfaced 525 yards.
M nw., Twenty-eighth to Thirty-first (including Aqueduct st.).	....do	1875	7,887	1907				New pavement, excepting Aqueduct street and south side between Twenty-eighth and Twenty-ninth laid on hydraulic base, 1907.
M nw., Thirty-first to Thirty-second, south side	Asp. H. B	1897	737				.14	
M nw., Thirty-first to Thirty-second, north side	....do	1898	778				.18	
M nw., Thirty-second to Thirty-third	....do	1898	3,581				.041	
M nw., Thirty-third to Thirty-sixth	....do	1897	4,476				.143	
M ne., North Capitol to First	....do	1894	3,104					$32.78 in eight years.
M ne., First to Fourth	....do	1906	6,279					
M ne., Fourth to Florida ave	....do	1896	3,717					
M se., South Capitol to Eleventh	Asp. block	1905	9,650					
		1906	5,909					
		1907	1,866					
M sw., South Capitol to Four-and-a-half	....do	1903	4,558					
M sw., Four-and-a-half to Sixth	Granite	1891	1,125					
M sw., Sixth to Water	....do	1891	757					
Macomb, Wisconsin ave. eastward	Gravel		8,000					
Madison, M and N, Sixth and Seventh nw	Asp. B. B	1889	1,538		.01		.025	
Madison, Brightwood ave., Piney Branch road	Macadam	1901	3,175					
Madison place, H and I, Fifteenth and Sixteenth	Coal tar	1872	2,974	1880		.024	.009	

Maine ave., Third to Sixth	Cobble	1872	4,634					
McLean ave., N and O, Third and Four-and-a-half	Asp. block	1887	2,127					
Maple (Takoma Park)	Gravel	1891	2,500					
Maple (Anacostia), Pleasant to High	do		3,000					
Marion, P and Q, Sixth and Seventh	Asp. B. B	1889	2,861					
Maryland ave. ne., First to Fourth	Asp. block	1887	11,535					
Maryland ave. ne., Sixth to Eleventh	do	1889	14,951					
Maryland ave. ne., Eleventh to Thirteenth	do	1890	8,269					
Maryland ave. ne., Thirteenth to Fifteenth	do	1891	9,635					
Maryland ave. sw., First to Third	Asp. H. B	1883	3,394					
Maryland ave. sw., Third to Four-and-a-half	do	1902	3,213					
Maryland ave., Four-and-a-half to Sixth	do	1904	2,301					
Maryland ave., Sixth to Seventh	Cobble	1873	3,500					
Massachusetts ave., New Jersey ave. to Third	Asp. H. B	1882	3,858	1891		.048	.048	
Massachusetts ave., Third to Fourth and Fourth to Seventh, south side.	do	1881	3,910	1889				Resurfaced Third to Fourth.
Massachusetts ave., Fourth to Seventh, north side	do	1883	3,108	1904	.065			Resurfaced Fourth to Fifth.
				1906				Resurfaced Sixth to Seventh.
Massachusetts ave., intersection Fourth	Coal tar	1877	742		.018			
Massachusetts ave., intersection Fifth	do	1877	498	1899				
Massachusetts ave., Ninth to Thirteenth	Asp. H. B	1880	9,920		.014		.022	
Massachusetts ave., Thirteenth to Fourteenth	Coal tar	1877	2,991	1884		.044	.0507	
Massachusetts ave., Fourteenth to Twentieth	do	1873	13,898	1892		.01		Fifteenth to Scott circle, resurfaced.
				1895				Sixteenth to Dupont circle, resurfaced.
				1903				Dupont circle to Twentieth, resurfaced.
				1905				Fourteenth to Fifteenth, resurfaced.
Massachusetts ave., Fourteenth to Fifteenth, Highland Terrace.	do	1873	1,248	1875		.007		
Massachusetts ave., Twentieth to Florida ave	do	1875	5,817	1903				Resurfaced Twentieth to Twenty-first.
Massachusetts ave., triangular reservation west of Dupont circle.	do	1873	2,646		.023			
Massachusetts ave., Florida ave. to Sheridan circle	Asp. H. B	1898	2,572					
Sheridan circle	do	1900	4,867					
Massachusetts ave., Sheridan circle to S	Asp. block	1907	3,694					
Massachusetts ave., S to Wisconsin ave	Macadam	1904	14,200					
Do	do	1906	13,000					
Messmore place, Euclid to Columbia road	do	1905	2,700					
Michigan ave., North Capitol to Lincoln road	do	1901	12,816					
Michigan ave., Lincoln ave. to B. and O. R. R	do	1902	6,000					
Michigan ave., B. and O. R. R. to District line	Macadam and gravel		21,000					
Military road	Gravel		10,000					
	Macadam		6,400					
Minnesota ave., Harrison to Pennsylvania ave	Gravel	1892	21,226					
Mintwood place, Columbia road to Nineteenth	Asp. H. B	1903	1,899					
Missouri ave., Third to Four-and-a-half	Granite	1884	2,562					
Missouri ave., Four-and-a-half to Sixth	Asp. block	1894	563					
	Asp. H. B	1904	808					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Monroe, Park road to Thirteenth, nw	Gravel		3,800					
Monroe, Thirteenth to Fourteenth, nw	Macadam	1907	1,200					
Monroe, Fourteenth to Piney Branch road, nw	do		4,800					
Monroe ne., Tenth to Thirteenth	Gravel		3,600					
Montello ave. ne., Florida ave. to Mount Olivet road	Macadam	1898	10,544					
Morgan, M and N, New Jersey ave. and Kirby	Asp. H. B	1892	1,307					
Morse ne., Montello ave. to Trinidad ave	Macadam	1895	3,449					
Morton, Brightwood ave. to Sherman ave	do	1889	2,700					
Morris place ne., F and G, Sixth and Seventh	Asp. block	1897	1,644					
Morris road	Gravel		5,800					
Mount Pleasant st., Columbia road to Park road	Macadam		6,000					
Mount Olivet road	Gravel		6,000					
Murdock Mill road	do		10,000					
Myrtle ne., I and K, North Capitol and First	Asp. B. B	1889	1,426		$0.011			
N nw., North Capitol to Third	Asp. H. B	1892	5,642				$0.0017	
N nw., New Jersey ave. to Fifth	do	1890	3,311		.012		.043	
N nw., Fifth to Ninth	do	1883	4,454	1907	.048			
N nw., Ninth to Fourteenth	do	1880	6,802	1894 1899	.014		.019	Intersection Vermont ave. Ninth to Tenth.
N nw., Fourteenth to Scott square	do	1881	3,249		.01		.034	
N nw., Scott square to New Hampshire ave	Coal tar	1873	6,556	1878 1894 1901 1898		$0.0011	.004	All resurfaced. Resurfaced Connecticut ave. to New Hampshire ave. Resurfaced Sixteenth to Seventeenth. Resurfaced Seventeenth to Eighteenth.
N nw., New Hampshire ave. to Twenty-first	do	1875	517	1901	.043			
N nw., Twenty-first to Twenty-second	Asp. H. B	1892	2,081					
N nw., Twenty-second to Twenty-fourth	do	1892	2,196					
N nw., Twenty-eighth to Thirtieth	Asp. on Asp. B	1897	1,599			.008		Asphalt block laid in 1882.
N nw., Thirtieth to Thirty-second	Asp. H. B	1880	3,525		.016		.0058	
N nw., Thirty-second to Thirty-fifth	do	1880	5,689		.016		.016	
N ne., North Capitol to First	Granite		2,700					
N se., Canal to Third	Cobble	1873	5,970					
N sw., Canal to Third	Cobble	1873	5,970					
N sw., Third to Four-and-a-half	Asp. H. B	1900	2,619					
N sw., Four-and-a-half to Sixth	do	1897	2,301					
Naylor road	Gravel		13,000					
Nebraska ave., Tunlaw road to Ridge road	Macadam	1902	20,000					
New Hampshire ave., G to I	Rubble	1875	5,023					
New Hampshire ave., I to Pennsylvania ave	Asp. H. B	1903	2,944					

New Hampshire ave., Pennsylvania ave. to M	do	1879	6,992		.015		.004	
New Hampshire ave., M to P	do	1882	10,047	1906	.042			
New Hampshire ave., P to Q	do	1885	2,537	1907	.013		.015	
New Hampshire ave., Q to R	do	1888	4,164	1904	.06			
New Hampshire ave., R to T	do	1889	8,809		.024		.104	
New Hampshire ave., T to V	do	1890	6,805		.009		.019	
New Hampshire ave., V to W	do	1904	2,976					
New Hampshire ave., Brightwood ave. to Park road	Macadam	1903	8,000					
New Hampshire ave., Rock Creek Church road to Randolph	Asp. B. B	1892	5,082					
New Jersey ave. nw., B to C	Coal tar	1877	2,862		.03		.018	
New Jersey ave. nw., C to D	Granite	1877	1,177		.044		.064	
	do	1877	2,385					
New Jersey ave. nw., D to L	Asp. H. B	1882	21,463		.035		.049	
New Jersey ave. nw., L to New York ave	do	1884	3,669		.046		.021	
New Jersey ave. nw., M to Florida ave	Coal tar	1887	18,127	1895	.043		.051	Resurfaced, M to Q.
New Jersey ave. se., B to E	Granite	1879	8,776					
New Jersey ave. se., I to M	Macadam		5,500					
New Jersey ave. se., M to N	Gravel		3,300					
New York ave. nw., North Capitol to New Jersey ave.	Asp. H. B	1890	5,604		.029		.146	
New York ave. nw., New Jersey ave. to Seventh	Asphalt	1889	9,229	1905	.034	.156	18	Resurfaced, New York ave. to Fifth.
New York ave., Ninth to Fifteenth	Vitrified block	1895						North side, Fourteenth to Fifteenth.
				1885				Resurfaced, Eleventh to Twelfth.
				1887				Resurfaced, Twelfth to Thirteenth.
				1891				Resurfaced, Thirteenth to Fourteenth and center parking removed.
	Coal tar	1872	26,280	1895				Resurfaced, Fourteenth to Fifteenth, and center parking removed, Ninth to Tenth.
				1898				Repairs, Ninth to Fifteenth; resurfaced, and center parking removed, Tenth to Eleventh.
				1899		.022	.032	Resurfaced, south side Fourteenth to Fifteenth.
North Capitol, B to C	Asp. H. B	1883			.034			
North Capitol, G to I	do	1887	2,732	1902				H to I, east side.
				1903				G to H, west side.
				1904				G to H east side.
				1905				H to I, west side.
				1902				Resurfaced, east side.
North Capitol, I to K	Asp. B. B	1889	1,934	1904				Resurfaced, west side.
North Capitol, K to M	Asp. H. B	1891	3,925	1899	.124		.206	Resurfaced, Pierce to M.
North Capitol, M to New York ave	do	1893			.024		.138	
North Capitol, New York ave. to O	do	1894	1,665		.0027		.012	
North Capitol, O to Q	do	1897	2,535					
North Capitol, west side, P to Florida ave	do	1900	797					
North Capitol, Florida ave. to R	do	1899	3,222					
North Capitol, R to T	do	1903	4,922					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
North Capitol, T to V	Macadam	1901	4,000					
North Capitol, V to Michigan ave	do	1904	11,000					
Newark, Cleveland Park	do		7,000					
	Gravel		2,000					
Newton, Fourteenth to Nineteenth	Macadam		10,000					
Newton ne., Tenth to Queen's Chapel road	do	1902 1903	11,000					
Nichols ave., Anacostia	Granite	1884	2,090					
	do	1891	3,823					
	Macadam		7,000					
	Gravel		25,000					
North Carolina ave. se., First to Second	Asp. block	1900	3,111					
North Carolina ave., Third to Sixth	do	1890	5,033					
North Carolina ave., Sixth to Eighth	do	1891	6,378					
North Carolina ave., Eighth to Eleventh	do	1892	6,480					
O nw., North Capitol to First	Asp. H. B	1902	3,183					
O nw., First to Third	do	1899 1900	3,028 925		$0.02		$0.034	
O nw., New Jersey ave. to Thirteenth	Coal tar	1875	12,399	1881				Resurfaced Eighth to Ninth and Tenth to Thirteenth.
				1902				Asphalt laid in abandoned railroad track.
				1902		$0.032	.032	Resurfacing Ninth to Tenth.
O nw., between Eighth and Ninth	Granite		1,262					
O nw., Thirteenth to Vermont ave	Asp. H. B	1883	481		.054		.116	
O nw., Fifteenth to Sixteenth	Coal tar	1875	1,663		.0094			
O nw., Sixteenth to Seventeenth	Asp. H. B	1883	1,697		.045		.051	
O nw., Twentieth to Twenty-first	Coal tar	1887	2,011		.013		.034	
O nw., Twenty-first to Twenty-second	Asp. H. B	1889	2,398		.0047			
O nw., Twenty-eighth to Twenty-ninth	do	1890	860		.005			
O nw., Twenty-ninth to Wisconsin ave	do	1885	4,829		.045		.012	
O nw., Wisconsin ave. to Thirty-fifth	Granite	1879	4,435					
O nw., Thirty-fifth to College gate	Coal tar	1888	2,398	1904				
O nw., North Capitol to New Jersey ave	Asp. H. B	1900	3,100					
O sw., Third to Four-and-a-half	Asp. block	1903	1,963					
Oak, Brown to Center	Gravel		1,000					
Ohio ave., Twelfth to Fifteenth	Cobble	1872 1874	9,169					
Olive, Twenty-eighth to Thirtieth	Asp. block	1899	1,674					
Ontario road, Kalorama road to Columbia road	Gravel		3,000					
Ontario road, Columbia road to	Asp. H. B	1903	2,054					
Oregon ave., New Hampshire ave. to Eighteenth	do	1895	2,129					

Otis place	Gravel		3,400					
P nw., North Capitol to Fourth	Asp. B. B	1891 1902	7,938 2,751					New pavement in abandoned tracks.
P nw. New Jersey ave. to Ninth	Asp. H. B	1884	5,166	1902				Resurfaced.
P nw., Ninth to Fifteenth	do	1902	684					Resurfaced Ninth to Eleventh.
	do	1883	7,633	1902 1907		.07		Resurfaced Eleventh to Thirteenth.
	Granite		523					
P nw., Fifteenth to Eighteenth	Asp. H. B	1884	8,076	1901				Resurfaced Seventeenth to Eighteenth.
				1906				Resurfaced Fifteenth to Seventeenth.
P nw., Eighteenth to Twentieth	do	1873	1,569	1878				Resurfaced entirely.
				1896				Resurfaced Eighteenth to Dupont circle.
P nw., Twentieth to Twenty-second	do	1903	2,746					Replaced granite laid in 1879.
P nw., Twenty-second to Rock Creek	Coal tar	1872	1,079	1881				
				1897		.022	.032	
P nw., Rock Creek, 340 feet west	do	1872	1,590	1887		.043	.025	
P nw., 340 feet west of Rock Creek to Thirtieth	Granite	1879	6,869					
P nw., Thirtieth to Wisconsin ave	do	1879	4,011					
P nw., Wisconsin ave. to Thirty-fifth	do	1884	3,624					
P nw., Thirty-fifth to Thirty-sixth	Asp. H. B	1900	938					
P ne., North Capitol to Florida ave	do	1896	2,212					
P sw., Four-and-a-half to Water	Granite		2,000					
P sw., Delaware ave. to Four-and-a-half	Asp. block	1905	2,556					
Park road, Brightwood ave. eastward	Macadam		5,000					
Park road, Brightwood ave. to Fourteenth	do		9,000					
Park road, Fourteenth to Seventeenth	do		5,500					
Park road, Seventeenth to Twentieth	do		6,700					
Park place ne., B and C, Eleventh and Twelfth	Gravel		1,700					
Paterson ne., M and N, North Capitol and First	do		2,700					
Pennsylvania ave. nw., First to Fifteenth	Asp. H. B	1877	78,591	1890				Paved with wood in 1871; First to Sixth, Neuchatel rock; Sixth to Fifteenth, asphalt, 1877. The whole resurfaced in 1890, and is now being resurfaced and defective cross-section improved.
				1879 1880				Fifteen-and-a-half to Eighteenth, north side, and south side Fifteenth to Fifteen-and-a-half, hydraulic base.
Pennsylvania ave. Fifteenth to Eighteenth	Coal tar	1871	17,017	1890				Resurfaced entire.
				1900				South side Executive ave. to Seventeenth.
				1903				North side Seventeenth to Eighteenth.

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Pennsylvania ave., north side, Eighteenth to Twenty-third.	Coal tar	1875	15,307	1887				Resurfaced Eighteenth to Twentieth.
				1889				Resurfaced north side Eighteenth to circle.
				1898		$0.025	$0.053	New pavement north side Eighteenth to Twenty-first.
Pennsylvania ave., south side, Eighteenth to Twenty-third.	do	1875	10,078	1884				Resurfaced Eighteenth to Nineteenth.
				1894		.018	.073	
Pennsylvania ave., Twenty-third to Twenty-sixth, north side, and Twenty-sixth to Rock Creek.	do	1877	7,383	1888				Twenty-sixth to Rock Creek.
				1894		.026	.038	Twenty-third to Rock Creek.
Pennsylvania ave., Twenty-third to Twenty-fourth, south side.	Asp. H. B	1880	1,225		$0.059		.076	
Pennsylvania ave., Twenty-fourth to Twenty-sixth, south side.	do	1883	4,145		.029		.043	
Pennsylvania ave. se., north side, Second to Eighth.	Asp. B. B	1876	14,755		.027		.043	
Pennsylvania ave. se., south side, Second to Fourth.	Asp. H. B	1879	4,458		.02		.024	
Pennsylvania ave. se., south side, Fourth to Seventh.	do	1879	6,126		.035		.016	
Pennsylvania ave. se., north side, Eighth to Eleventh.	do	1883	5,320		.029		.043	
Pennsylvania ave. se., south side, Eighth to Eleventh.	do	1888	5,400		.027		.107	
Pennsylvania ave. se., south side, Eleventh to Twelfth.	do	1901	2,287					
Pennsylvania ave. se., south side, Twelfth to Thirteenth.	do	1902	2,349					
Pennsylvania ave. se., Thirteenth to bridge.	Macadam	1890	23,278					
Pennsylvania ave. se., bridge to Minnesota ave.	do	1902	5,000					
Pennsylvania ave. se., Minnesota ave. to Branch ave.	Gravel		25,000					
Phelps place, Bancroft to California	Asp. H. B	1896	1,164					
Pickford place, F and G, Eighth and Ninth	Asp. block	1895	2,129					
Piney Branch road	Macadam		26,000					
Pierce, L and M, New Jersey ave. and N. Capitol	Asp. B. B	1889	5,535		.0016		.0	
Pierce place, S and T, Fourteenth and Fifteenth	Coal tar	1873	2,154		.026		.015	
Pierce place, S and T, Fifteenth and Sixteenth	Asp. B. B	1892	1,366					
Pierce st., Harrison to Jefferson	Gravel		3,000					
Pierce Mill road	do		16,000					
Pleasant drive	Macadam		4,000					
	Gravel		4,000					
Poth st., Anacostia	Gravel		1,350					
Portner place, U and V, Fourteenth and Fifteenth	Asp. block	1888	1,025					

Potomac, M to Prospect	Granite	1879	389					
		1884	664					
Potomac, Prospect to O	Asp. H. B	1884	1,840					
Q nw., Third to New Jersey ave	do	1890	1,812		.037		.013	
Q nw., New Jersey ave. to Fifth	Coal tar	1888	2,031	1907	.05			
Q nw., Fifth to Sixth	Asp. B. B	1890	833		.012		.012	
Q nw., Sixth to Rhode Island ave	Coal tar	1887	4,758	1896				Resurfaced Sixth to Seventh.
				1900			008	Resurfaced Seventh to Rhode Island ave.
Q nw., Rhode Island ave. to Vermont ave	do	1889	2,453		.02		.061	
Q nw., Vermont ave. to Fourteenth	Asp. H. B	1883	2,806	1906	.04			
Q nw., Fourteenth to Sixteenth	Coal tar	1874	4,806	1886				Resurfaced Fifteenth to Sixteenth
				1892				Resurfaced Fourteenth to Fifteenth.
Q nw. Sixteenth to Seventeenth	do	1875	2,301	1895			018	.033
Q nw., Seventeenth to Nineteenth	Asp. H. B	1888	4,904	1902				Resurfaced Nineteenth to New Hampshire ave.
				1904				Resurfaced Seventeenth to Eighteenth.
Q nw., Nineteenth to Twentieth	Coal tar	1873	862	1882			.054	.037
				1888				
Q nw., Twentieth to Twenty-first and Massachusetts ave. to Twenty-second.	do	1886	2,541	1900			.046	.032
Q nw., Twenty-second to Twenty-third	Asp. H. B	1905	1,765					
Q nw., Twenty-eighth to Thirtieth	Asp. B. B	1889	2,000		.005		0	
Q nw., Thirtieth to Thirty-second	Coal tar	1887	3,943		.019		.064	
Q nw., Thirty-second to Wisconsin ave	do	1887	1,067	1904	.036		0	
Q nw., Wisconsin ave. to Thirty-fourth	Asp. block	1900	2,114					
Q nw., Thirty-fourth to Thirty-fifth	do	1900	995		.014			
Q ne., Lincoln ave. to Eckington place	Asp. H. B	1892	3,933					
Quarry road, Columbia road to Zoo Park	Macadam		3,500					
Quincy, Brightwood ave. to Rock Creek Church road.	Gravel	1892	3,700					
	Asphalt		2,600					
Quincy place, N. Capitol to Florida ave	Asp. H. B	1905	2,033					
Quincy place, Lincoln road to Eckington place	do	1891	3,770		.0027		.018	
Quincy place, Third to Eckington line	do	1892	919					
Quincy, Michigan ave. to Thirteenth ne	Gravel		3,300					
Queen's Chapel road	do		18,000					
R nw., Florida ave. to Lincoln road	Asp. B. B	1890	3,051		.0020			
	Asp. H. B	1890	2,040					
R nw., Florida ave. to Seventh	do	1890	8,483		.002		.013	
R nw., Seventh to Ninth	Coal tar	1888	1,601		.011			
R nw., Ninth to Fourteenth	Asp. H. B	1884	7,637	1907	044		.058	Resurfaced Twelfth to Fourteenth.
R nw., Fourteenth to Sixteenth	Coal tar	1875	4,502	1896		.0019		
R nw., Sixteenth to New Hampshire ave	Asp. H. B	1890	4,155		.0097		.025	
R nw., New Hampshire ave. to Twentieth	do	1891	3,498		.0067		.019	
R nw., Connecticut ave. to Twenty-first	Coal tar	1887	1,411	1902	.042			
R nw., Twenty-first to Florida ave	Asp. H. B	1892	735					Repairs, $3.64 to date.
R nw., Florida ave. to Massachusetts ave	do	1904	2,546					
R nw., Twenty-ninth to Thirtieth	do	1904	1,030					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
R nw., Thirtieth to Thirty-first	Asp. H. B	1903	3,886					
R nw., Thirty-first to Wisconsin ave	do	1895	4,226					
R nw., Wisconsin ave. to Thirty-fifth	do	1894	2,371					
R ne., Lincoln road to Fourth	Asp. B. B	1889	8,555		$0.025		$0.0092	
Randolph place nw., N. Capitol to First	Macadam	1890	2,700					
Randolph place ne., Second to Fourth	Asp. B. B	1889	2,000					
Randolph st. nw., Brightwood ave to Fifth	do	1892	3,536					
	Gravel		4,780					
Reservoir st. west of Thirty-fifth	Macadam		12,000					
Reservoir st., Wisconsin ave to Thirty-fifth	Asp. block	1905	2,774					
Rhode Island ave., Florida ave. to First	Asp. H. B	1904	6,343					
Rhode Island ave., Florida ave. to New Jersey ave	do	1898	1,146					
Rhode Island ave., New Jersey ave. to Fifth	Asp. B. B	1888	2,313		.027		.054	
Rhode Island ave., Fifth to Ninth	Asp. H. B	1883	8,120		.051		.058	
Rhode Island ave., Ninth to Thirteenth	do	1882	9,219		.03		.027	
Rhode Island ave., Thirteenth to Sixteenth	do	1881	7,723		.017		.019	
Rhode Island ave. around Scott square	Coal tar	1873	12,600	1881	.044			
				1900	.01			
Rhode Island ave., Sixteenth to Connecticut ave	do	1873	5,411	1893	.047			Sixteenth to Seventeenth.
				1895	.006		.007	Seventeenth to Connecticut ave.
Rhode Island ave. ne., Fourth to Brentwood road	Macadam	1905	13,500					
Ridge st., M and N, Fourth and Fifth nw	Asp. B. B	1889	2,518		.005		.048	
Ridge road nw	Gravel	1891	15,000					
Riggs st., R and S, Thirteenth and Fourteenth	Asp. block	1886	2,630					
Riggs, R. and S, Sixteenth and Seventeenth	Asp. H. B	1891	1,620		.006			
Riggs, New Hampshire ave. to Nineteenth	do	1896	2,555					
Riggs road	Gravel		9,000					
Robinson st. sw., L and M, Sixth and Water	do		950					
Rock Creek Church road	Macadam		20,000					
	Gravel		13,000					
S nw., North Capitol to First	Asp. H. B	1905	2,904					
S nw., First to Second	do	1906	1,929					
S nw., Florida ave. to Seventh	do	1894	4,539					
S nw., Seventh to Eleventh	Coal tar	1889	5,058		.009		.029	
S nw., Eleventh to Fourteenth	do	1875	5,135	1892				Resurfaced Twelfth to Fourteenth.
				1900	.005		.028	Resurfaced Eleventh to Twelfth.
				1889				Resurfaced Fifteenth to Sixteenth.
S nw., Fourteenth to Sixteenth	do	1873	4,214	1894				Resurfaced Fourteenth to Fifteenth.
S nw., Sixteenth to New Hampshire ave	Asphalt	1889	2,681		.037		.096	
S nw., New Hampshire ave. to Twentieth	Asp. H. B	1894	5,004		.003		.024	

S nw., Twentieth to Connecticut ave	Asp. B. B	1890	1,077		.006			
S nw., Florida ave. to Phelps place	Asp. H. B	1895	1,037					
S nw., Phelps place to Twenty-third	do	1901	2,861					
S nw., west of Twenty-third	do	1904	369					
S ne., Second to Fourth	Asp. B. B	1887	3,500					
Seaton place nw., North Capitol to First	Macadam		2,600					
Seaton place, First to Second nw	Gravel		1,800					
Seaton place, Second to Fourth ne	Asp. B. B	1887	2,800					
Sargent road	Gravel		9,000					
Shepherd road	do	1907	13,000					
Shepherd, Brightwood ave. to Eighth	Macadam		1,750					
School, Four-and-a-half and Sixth, D and E sw	Cobble		2,000					
School, Park road to Lamont	Macadam		2,000					
Sherman ave., Florida ave. to Park road	do		20,000					
Spruce and Bohrer, Le Droit Park	Asp. H. B	1897	2,319					
	do	1900	2,064					
Sheriff road	Gravel		10,000					
Spring Morris road to Arthur	do		1,600					
Spring road, Rock Creek Church road to Piney Branch road.	Macadam	1903	8,000					
South Capitol, B to C	Asp. block		2,979					
South Capitol, C to E	Macadam		5,000					
South Capitol, E to H	Granite	1894	5,654					
South Capitol, H to K	do	1898	4,416					
South Capitol, K to M	Asp. H. B	1901	2,941					
South Capitol, M to O	do	1902	6,060					
South Capitol, O to P	Asp. block	1903	1,314					
South Capitol, P to river	do	1902	6,616					
Streets in American University Park	Macadam	1906	14,000					
Sunderland place, N and O, Nineteenth and Twentieth.	do	1885	1,185					
T nw., Florida ave. to Seventh	Asp. B. B	1898	1,332					
T nw., Seventh to Ninth	Asp. H. B	1896	1,347					
T nw., Ninth to Tenth	do	1891	1,766					
T nw., Tenth to Fourteenth	do	1892	5,250		.002		.005	
T nw., Fourteenth to New Hampshire ave	do	1895	5,146		.0036		.008	
T nw., Seventeenth to Eighteenth	do	1906	3,035					
T nw., Eighteenth to Florida ave	Asp. block	1907	1,984					
T nw., North Capitol to First	do	1907	3,138					
T nw., First to Second	Macadam		3,000					
T nw., Second to Fourth	Asp. H. B	1891	3,680		.0045			
T nw., Fourth to Florida ave	do	1890	3,237		.0015		.0048	
T ne., Second to Fourth	Asp. B. B	1889	2,050		.016		.01	
Taylor, Harrison to Jefferson	Gravel		2,500					
Taylor, Brightwood ave. to Eighth	Macadam		2,000					
Tilden, Connecticut ave. to Twenty-ninth	Asp. block	1902	4,518					
Todd place	Gravel		900					
Trinidad, King's subdivision	Macadam	1901	3,200					
Tunlaw road	Gravel		11,000					
U nw., east of Second	Asp. block	1895	1,667					
U nw., Ninth to Tenth	Asp. H. B	1891		1906				Widened and resurfaced.

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
U nw., Tenth to Fourteenth	Asp. H. B	1893 1894	4,808					
U nw., Fourteenth to Sixteenth	do	1892	3,310		$0.0047		$0.0085	
U nw., Sixteenth to Eighteenth	do	1896	4,125		.0032		.011	
U nw., Eighteenth to Nineteenth	Asp. B. B	1887	1,718		.007		.027	
Union sw., M and O, Four-and-a-half and Sixth	Cobble		5,333					
Upton nw., Connecticut ave. to Twenty-ninth	Asp. block	1902	2,202					
V nw., Florida ave. to Thirteenth	Macadam		4,500					
V nw., Thirteenth to Fifteenth	Asp. H. B	1894	4,544					
V nw., Fifteenth to Seventeenth	Macadam		3,000					
V nw., Seventeenth to Florida ave	Asp. H. B	1904	1,214					
Van sw., Third to Four-and-a-half	Asp. block	1898	1,177					
Vermont ave., H to I	Coal tar	1871	4,156	1880	.01		.005	
Vermont ave., K to M	do	1872	6,536	1882 1894		$0.017	.026	Resurfaced L to M. Resurfaced K to L.
Vermont ave., M to P	do	1873	6,150	1893		.012	.038	
Vermont ave., intersection of N	Asp. H. B	1878	338					
Vermont ave., P to R	do	1881	6,103		.041		.033	
Vermont ave., R to T	do	1904	4,325					
Vermont ave., T to Florida ave	Gravel		5,500					
Virginia ave. nw., E to G	Asp. H. B	1895 1896	8,724		.0015		.0026	
Virginia ave. nw., B to E and G to Twenty-seventh	Gravel and macadam		16,000					
Virginia ave. sw., South Capitol to Delaware ave	Asp. H. B	1897	1,850					
Virginia ave. sw., Delaware ave. to Second	do	1900	1,787					
Virginia ave. sw., Second to Seventh	Macadam and cobble		10,000					
Virginia ave. sw., Ninth to Twelfth	Granite	1881	3,836					
Virginia ave. se., South Capitol to Second and Fifth to Seventh.	Asp. H. B	1906	14,525					
Virginia ave. se., Second to Fifth	do	1907	3,450					
Virginia ave. se., Seventh to Eleventh	Gravel							
Volta place, Wisconsin ave. to Thirty-fifth	Asp. H. B	1891	4,012					
W, Florida ave. to Twelfth	Macadam		2,500					
W nw., Twelfth to Thirteenth	Asp. H. B	1896	1,358					
W nw., Thirteenth to Fifteenth	do	1900	4,368					
W nw., west of Massachusetts ave	Macadam	1904	3,900					
Wallach, T and U Thirteenth and Fourteenth nw	Asp. block	1886	2,075					
Ward place, M and N, New Hampshire ave. and Twenty-second nw.	Asp. B. B	1892	1,505		.009		.068	
Washington, G and H, Fourth and Fifth nw	do	1889	2,128	1904		.069	.125	Resurfaced 1,149 yards.
Washington, Nichols to Taylor	Gravel		7,000					

Water sw., Seventh to Twelfth	Granite	1872	16,858					
Water sw., N to O	do	1876	3,359					
Water sw., M to Sixth	do	1884	3,526					
Water sw., southside P westward	Vitrified block	1899	2,943					
Water sw., Twelfth to Thirteenth	Granite	1880	3,110					
Webster, Brightwood ave. to Eighth	Macadam	1902	2,653					
Westminister, S and T, Ninth and Tenth nw	Asp. H. B	1892	1,749					
Wheeler road	Gravel		10,000					
Willard, T and U, Seventeenth and Eighteenth nw	do		2,000					
Wisconsin ave., K to M	Vitrified brick		465					
	Cobble		2,500					
Wisconsin ave., M to P	Granite	1879	6,202					Widening M to N.
		1894	561					
Wisconsin ave., P to R	Asp. block	1902	3,315					
Wisconsin ave., R to Thirty-fourth	Cobble		1,825					
Wisconsin ave., Thirty-fourth to Thirty-fifth	Macadam		3,500					
Wisconsin ave., Thirty-fifth to Tunlaw road	Granite	1893	6,076					
Wisconsin ave., Tunlaw road to District line	Macadam		50,000					
Wyoming, Eighteenth to Columbia road	Asp. B. B	1887	2,700		.0076		.017	
Wyoming, Columbia road west		1887	3,500					
		1903	1,454		.0026			
First nw., Maryland ave. to Pennsylvania ave	Asp. H. B	1883	4,540	1896	.027			
				1902			.018	
First nw., Pennsylvania ave. to F	Granite	1879	6,280					
First nw., B to C	Vitrified block	1893	577					
First nw., B to C	Asp. H. B	1903	475					
First nw., Massachusetts ave. to H	Granite	1882	1,427					
First nw., H to Defrees	Asphalt	1877	700		.028		.018	
First nw., Defrees to I	Granite	1882	535					
First nw., I to K	Asp. B. B	1890	1,191		.023		.06	
First nw., K to Pierce	Asp. H. B	1894	3,051		.005		.016	
First nw., Pierce to New York ave	do	1899	1,731					
First nw., New York ave. to O	do	1901	2,728					
First nw., O to P	do	1896	1,160					
First nw., P to Q	do	1902	1,748					
First nw., Q to Florida ave	do	1901	1,077		.017			
First nw., Florida ave to S	Asphalt	1892	1,898		.017	.019		Macadam base.
First nw., S to W	Asp. H. B	1895	7,385		.015		.004	
First nw., W to Bryant	Asp. B. B	1893	2,755					Private expense.
First ne., B n. to B s	Asp	1873	8,822	1897				R. R. tunnel under st.
First ne., B to C	Asp. H. B	1881	1,987		.007			
First ne., C to E	Asp. B. B	1891	2,200		.016			
First ne., New York ave. to Florida ave	Asp. H. B	1905	707					
First ne., Q to R	do	1892	2,206		.018			
First ne., R to alley	do	1892	538					Repair, $4.43.
First se., B to C	Granite	1880	2,152					
First se., C to D	Asp. block	1889	1,260					
First se., D to E	Asp. H. B	1895	2,001		.017		.06	
First se., E to G	Asp. block	1900	1,652					
First se., I to river	Gravel		10,200					
First sw., Maryland ave. to Virginia ave	Trap rock	1874	6,721					
First sw., Virginia ave. to M	do	1876	11,198					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
First sw., M to N	Rubble	1876	2,315					
First sw., N to river	Gravel		13,750					
Second nw., Pennsylvania ave. to Indiana ave	Granite	1881	3,693					
Second nw., Indiana ave. to I	Asp. H. B	1881	10,452		$0.05			
Second nw., Florida ave. to U	do	1892	6,051					Repairs, $2.35 per year.
Second ne.. and se., Pennsylvania ave. to Maryland ave.	do	1881	4,751		.029			
Second ne. Maryland ave. to C	Asp. block	1887	1,846					
Second ne., C to F	do	1894	4,323					
Second ne., F to G	Asp. B. B	1891	3,152		.019			
Second ne., G to H	Asp. H. B	1905	1,633					
Second ne., H to M	do	1905 1907	6,183					
Second ne., R to T	Asp. B. B	1890	4,214					Repairs, $2 per year.
Second se., Pennsylvania ave. to D	Asp. H. B	1882	4,906		.039		$0.03	
Second se., D to F	Asp. block	1903	2,452					
Second se., F to G	Macadam	1891	1,050					
Second se., Virginia ave. to I	do	1892	1,206					
Second se., K to L	do	1901	1,219					
Second sw., Maryland ave. to C	Asp. H. B	1892	2,532		.019		.068	
Second sw., C to Virginia ave	Asp. B. B	1890	3,179	1903	.014		.004	
Second sw., Virginia ave. to F	Asp. H. B	1891	511		.0037		.04	
Second sw., F to Delaware ave	Macadam	1889	4,231					
Third nw., Pennsylvania ave. to B	Asp. H. B	1903	602					
Third nw., B to D	Granite	1880	3,629					
Third nw., intersection of D	Asp. H. B	1880	436	1883	.036	$0.031		D to K.
Third nw., D to L	Asp. B. B	1875	16,359	1904 1905		.032	.057	K to L.
Third nw., L to New York ave	Asp. H. B	1879	2,685	1903	.038			
Third nw., New Jersey ave. to P	do	1892	4,177				.0097	
Third nw., P to Q	do	1899	2,077					
Third nw., Q to R	do	1900	529					
Third nw., R to Florida ave	do	1901	2,205					
Third nw., Florida ave. to Elm	Gravel		4,300					
Third ne., East Capitol to Maryland ave	Asp. H. B	1884	3,121		.045		.08	
Third ne., Maryland ave. to C	Asp. block	1887	1,090					
Third ne., C to F	Asp. B. B	1890	4,314		.016		.066	
Third ne., F to H	Asp. H. B	1891	3,834		.0024		.015	
Third ne., R to T	Asp. B. B	1887	3,000		.0125		.036	
Third se., East Capitol to Pennsylvania ave	Asp. H. B	1881	3,521	1905	.04			
Third se., Pennsylvania ave. to C	Asp. block	1887	987					
Third se., C to D	Granite	1882	2,572					

Third se., D to E	Asp. H. B	1905	1,567					
Third se., E to Virginia ave	Belgian block	1876	3,463					
Third se., M to N	Rubble	1876	2,017					
Third se., Virginia ave. to K	Granite	1890	2,467					
Third se., K to M	Macadam		2,000					
Third sw., Pennsylvania ave. to B south	Granite	1881	5,941					
Third sw., B to Virginia ave	Asp. H. B	1884	5 890	1901	.053			
Third sw., Virginia ave. to F	do	1885	2,088	1902 1907	.035			Resurfaced, E to F. Resurfaced, Virginia ave. to E. New pavement.
Third sw., F to H	do	1895	2,947					
Third sw., H to I	do	1896	1,342		.011		.05	
Third sw., I to K	do	1897	1,472		.00017		.01	
Third sw., K to N	do	1899	6,325					
Third sw., N to O	Asp. block	1905	2,807					
John Marshall pl., Pennsylvania ave. to D	do	1889	4,549					
Fourth nw., Pennsylvania ave. to Missouri ave	Asp. H. B	1898	2,287	1898	.074			In place of coal tar.
Fourth nw., Indiana ave. to New York ave	Coal tar	1872	14,291	1878 1889 1891 1901	.011 .0097	 .018	 Resurfaced, G to New York ave.	Resurfaced, Sixth to New York ave. Resurfaced, D to E.
Fourth nw., New York ave. to New Jersey ave	Granite	1891	2,400					
Fourth nw., New Jersey ave. to Florida ave	Asp. H. B	1891	4,594		.007			
Fourth nw. (Linden), Florida ave. to T	do	1891 1892	2,145					
Fourth nw., T to College	Macadam	1891 1893	5,038 2,537					
Fourth ne., East Capitol to Maryland ave	Asp. block	1885	4,526					
Fourth ne., Maryland ave. to Massachusetts ave	do	1887	1,912					
Fourth ne., Massachusetts ave. to D	do	1890	837					
Fourth ne., D to F	do	1901	3,101					
Fourth ne., F to H	do	1904	3,820					
Fourth ne., H to K	Asp. H. B	1894	3,021		.0055		.013	
Fourth ne., K to L	do do	1898 1899	781 1,067					
Fourth ne., L to M	Gravel	1899	2,400					
Fourth ne., B. & O. R. R. to Eckington line	Asp. B. B		2,970	1903			.011	Resurfaced, east side T to Eckington line.
Fourth ne., V to W	Asp. H. B	1902	2,026					
Fourth ne., W to Michigan ave	Gravel		17,000					
Fourth se., East Capitol to Pennsylvania ave	Asp. H. B	1897	4,152					On asphalt block.
Fourth se., Pennsylvania ave. to North Carolina ave.	Asp. block	1890	593					
Fourth se., North Carolina ave. to Virginia ave	do	1898	6,684					
Fourth se., Virginia ave. to N	do	1899	7,706					
Four-and-a-half sw., Missouri ave. to Maryland ave.	Asp. B. B	1890	4,833	1905	.057			
Four-and-a-half sw., Maryland ave. to H	Granite	1882	12,851					
Four-and-a-half sw., H to P	do	1889	14,566					
Fifth nw., D to G	Asp. H. B	1885	3,341				.073	
Fifth nw., G to F	do	1894	390					Widening east side.
Fifth nw., G to F	do	1900	200					Widening west side.
Fifth nw., G to New York ave	do	1899	2,700					Widening.

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Fifth nw., G to New York ave	Coal tar	1873	4,298	1899	$0.02			
Fifth nw., New York ave. to O	Asp. B. B	1879	5,666		.025		$0.026	
Fifth nw., O to Q	do	1889	3,123	1907	.053		.1037	
Fifth nw., Q to Florida ave	do	1889	4,436		.043		.089	
Fifth nw., Florida ave. to T	do	1890	1,516					
Fifth nw., T to Spruce	do	1891	734		.002		.017	
Fifth ne., East Capitol to Stanton sq	Asp. block	1886	4,876					
Fifth ne., Stanton sq. to D	do	1890	875					
Fifth ne., D to Florida ave	Gravel		12,500					
Fifth se., East Capitol to Pennsylvania ave	Asp. H. B	1882	4,916	1906	.038			East Capitol to C.
Fifth se., crossing square at Pennsylvania ave	Asp. block	1890	693					
Fifth se., C to E	Asp. H. B	1894	2,570					
Fifth se., E to G	Asp. block	1899	1,851					
Fifth se., G to Virginia ave	do	1902	2,197					
Sixth nw., Missouri ave. to Louisiana ave	Asp. H. B	1885	5,078	1900	.034		.001	
Sixth nw., Louisiana ave. to E	Asp. B. B	1877	2,987	1882		$0.0436		
Sixth nw., E to F	Asp. H. B	1878	1,313	1907	.032		.032	Resurfaced.
Sixth nw., F to G	do	1907	975	1895		.03	.015	New pavement. Granite removed.
Sixth nw., G to New York ave	Coal tar	1887	6,896	1899 1901	.047			Sixth to Massachusetts ave., 1899; Massachusetts ave. to New York ave., 1901.
Sixth nw., New York ave. to Florida ave	Asp. H. B	1880	16,636		.014		.012	
Sixth nw., Florida ave. to Spruce	do	1890	907					
Sixth nw., W. to Fairmont	Gravel		7,000					
Sixth ne., East Capitol to Maryland ave	Asp. block	1886	4,626					
Sixth ne., Maryland ave. to Massachusetts ave	do	1887	1,998					
Sixth ne., Maryland ave. to D	do	1891	838					
Sixth ne., D to F	do	1904 1905	1,520 1,362					
Sixth ne., F to H	Asp. H. B	1900	3,640					
Sixth ne., K to Florida ave	Gravel		4,160					
Sixth se., East Capitol to Pennsylvania ave	Asp. block	1886	5,949					
Sixth se., Pennsylvania ave. to E	do	1887	4,399					
Sixth se., E to Virginia ave	do	1889	4,775					
Sixth sw., Missouri ave. to C south	Rubble		8,940					
Sixth sw., C to Water	Granite	1873	23,179					
Six-and-a-half sw., D to E	Asp. block	1898	1,477					
Seventh nw., B to Pennsylvania ave	Granite	1878	1,555					
Seventh nw. (east side), Market space to D	Coal tar	1875	1,579	1881		.04		
Seventh nw., Market space to E and G to New York ave.	Asp. H. B	1905	9,194					
Seventh nw., E to G	do	1899	3,528					

Seventh nw. (west side), Q to Florida ave.	Granite	1882	4,340					
Seventh nw. (east side), Q to Florida ave.	do	1889	3,406					
Seventh ne., East Capitol to Massachusetts ave.	Asp. block	1888	3,340					
Seventh ne., Massachusetts ave. to Maryland ave.	do	1889	3,315					
Seventh ne., Maryland ave. to H	do	1906	5,644					
Seventh ne., K to Florida ave.	Gravel		3,000					
Seventh ne., H to K	Asp. block	1903	1,960					
Seventh ne., Michigan ave. to Rhode Island ave.	Macadam	1905	8,118					
Seventh se., East Capitol to Pennsylvania ave.	Asp. block	1887	2,223					
Seventh se., Pennsylvania ave. to Virginia ave.	do	1889	8,394					
Seventh se., Virginia ave. to M	Macadam	1890	1,785					
Seventh sw., B north to B south	Trap rock	1876	6,926					
Seventh sw., B south to Water	Granite	1877	15,169					
Eighth nw., Pennsylvania ave. to E	do	1881	3,653					
Eighth nw., E to F	Coal tar	1877	1,963	1882		.053	.032	
Eighth nw., G to L	Asp. H. B	1883	4,883	1906	.042		.061	Resurfaced K to L.
Eighth nw., L to N	Coal tar	1875	3,610	1891	.024		.035	
Eighth nw., N to R	Asp. H.B	1883	6,493	1902	.0376	.063	.116	Resurfaced P to R.
Eighth nw., R to S	Coal tar	1887	2,063	1900	.052			
Eighth nw., S to Florida ave.	do	1888	3,624		.018		.032	
Eighth nw., Florida ave. to Barry pl.	Macadam		4,840					
Eighth nw., Shepherd to Webster	do	1907	5,000					
Eighth ne., East Capitol to Massachusetts ave.	Asp. block	1889	2,969					
Eighth ne., Massachusetts ave. to Maryland ave.	do	1891	5,856					
Eighth ne., Maryland ave. to D	Gravel		8,000					
Eighth ne., D to K	Macadam	1891	1,311					
Eighth ne., L to Florida ave.	do	1901	1,500					
Eighth se., East Capitol to North Carolina ave.	Asp H. B	1895	2,508					
Eighth se., North Carolina ave. to Pennsylvania ave.	do	1893	4,765		.002			
Eighth se., Pennsylvania ave. to K	do	1884	9,182	1903	.046	.021	.029	
Eighth se., K to M	do	1883	2,929	1903	.0168	.034	.06	Resurfaced K to M.
Eighth se., intersection of M	do	1898	480					
Eighth sw., B to C	Asphalt	1890	1,434		.015			Cobble base.
Eighth sw., C to E	Asp. H. B	1892	3,035		.0037		.014	
Eighth sw., E to H	do	1895	3,573					
Eighth sw., H to Water	Gravel		1,800					
Ninth nw., B to Pennsylvania ave.	Granite	1879	2,260					
Ninth nw., Pennsylvania ave. to F	Asp. H. B	1895	3,381					
				1878				F to Massachusetts ave.
				1884				Massachusetts ave. to N.
Ninth nw., F to P	Coal tar	1872	16,000	1885				Pennsylvania ave. to F.
				1895				
				1896	.042	.019	.024	N to P. Repairs for entire street.
				1897				F to G.
Ninth nw. (east side), P to Rhode Island ave.	Asp. H. B	1883	1,583		.042		.053	
Ninth nw. (west side), P to Florida ave.	do	1879	6,147		.0456		.0034	
Ninth nw. (east side), Rhode Island ave. to Florida ave.	do	1884	3,371		.027		.037	
Ninth nw., Florida ave. to Barry pl.	Macadam		3,500					
Ninth ne., Massachusetts ave. to East Capitol	Asp. H. B	1892	1,217					
Ninth ne., Massachusetts ave. to Maryland ave.	Asp. block	1891	6,712					
Ninth ne., Maryland ave. to H	Asp. H. B	1891	5,781		.0019			Repairs, $67.21.

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Ninth ne., H to I	Gravel		2,160					
Ninth ne., I to L	Macadam		3,500					
Ninth ne., L to Florida ave	....do	1901	2,300					
Ninth se., East Capitol to A	Asp. block	1902	1,218					
Ninth se., A to North Carolina ave	....do	1903	718					
Ninth se., North Carolina ave. to D	....do	1904	3,228					
Ninth se., Pennsylvania ave. to E	Asp. H. B	1901	817					
Ninth se., E to South Carolina ave	Asp. block	1897	1,247					
Ninth se., D to K	Gravel		1,000					
Ninth se., K to M	Macadam	1901	2,000					
Ninth sw., B to C	Asphalt	1889	1,454		$0.0580			Cobble base.
Ninth sw., C to Water	Granite	1883	7,061					
Tenth nw., B to Pennsylvania ave	....do	1872	3,103					
Tenth nw., D to E	Asp. H. B	1898	2,089					
Tenth nw., E to F	....do	1898						
Tenth nw., F to G	....do	1880	955	1907	.0545			
Tenth nw., G to K	Coal tar	1875	4,828	1889	.014			Resurfaced K to New York ave.
				1891				Resurfaced G to New York ave.
				1906				
Tenth nw., K to M	Asp. H. B	1880	3,368		.0206		$0.081	
Tenth nw., M to O	....do	1881	3,443		.0263		.034	
Tenth nw., O to R	....do	1883	4,433	1907	.05			Resurfaced O to French.
Tenth nw., R to S	Coal tar	1887	1,992	1901	.06	$0.08		Resurfaced French to S.
Tenth nw., S to T	Asp. H. B	1891	1,948		.0058		.0054	
Tenth nw., T to U	....do	1895	2,588					Repairs $12.09.
Tenth nw., U to Florida ave	....do	1900	4,683					
Tenth nw., Monroe to Spring rd	Gravel		3,200					
Tenth ne., East Capitol to C	Asp. block	1897	4,208					
Tenth ne., C to D	....do	1906	1,339					
Tenth ne., Maryland ave. to D	....do	1903	1,921					
Tenth ne., D to G	Asp. H. B	1893	2,915		.003			
Tenth ne., G to H	....do	1892	2,061					
Tenth ne., H to Florida ave	....do	1903	4,300					
Tenth se., East Capitol to B	Asp. block	1903	2,005					
Tenth se., B to D	Macadam	1890	2,653					
Tenth se., D to Pennsylvania ave	Asp. block	1892	788					
Tenth se., Pennsylvania ave. to I	....do	1896	4,478					
Do	....do	1897	449					
Tenth se., K to M	Macadam	1901	1,500					
Tenth sw., B to Maryland ave	Asp. block	1886	2,411					
Tenth sw., D to G	Cobble	1873	1,960					
Tenth sw., G to Water	Asp. H. B	1904	746					

Eleventh nw., B to D	do	1897	3,854					
Eleventh nw., D to E	do	1878	2,500	1891	.073	.033	.013	
Eleventh nw., E to F	Granite	1879	1,734					
Eleventh nw., F to G	do	1880	1,214					
Eleventh nw., G to K	Coal tar	1875	3,866	1898	.05	.041	.044	Resurfaced H to I.
Eleventh nw., K to O	Granite	1880	4,326					
Eleventh nw., O to Florida ave	Asp. H. B	1891	8,734		.0087		.005	
Eleventh nw., Florida ave. to Monroe	Macadam	1903	15,035					
Eleventh nw., Monroe to Spring rd	Gravel		5,700					
Eleventh ne., East Capitol to Massachusetts ave	Asp. block	1895	1,093					
Eleventh ne., Massachusetts ave. to C	do	1900	4,202					
Eleventh ne., C to Maryland ave	Gravel		2,300					
Eleventh ne., Maryland ave. to Florida ave	Macadam	1895	6,951					
Eleventh se., East Capitol to C	Asp. block	1891	8,076					
Eleventh se., C to Pennsylvania ave	do	1893	7,006					
Eleventh se., Pennsylvania ave. to Eastern Branch	Granite	1889	15,451					
Eleventh se. (west side), M to Eastern Branch	do	1882	4,698					
Eleventh sw., B to Water	Belgian block	1873	10,511					
Twelfth nw., C to D	Asp. H. B	1897	1,911					
Twelfth nw., Pennsylvania ave. to E	do	1878	1,202	1886		.078	.16	
Twelfth nw., E to F	Granite	1879	1,627					
Twelfth nw., F to N	Coal tar	1875	13,039	1889 1894 1907	.023		.035	Resurfaced G to Mass. ave. Resurfaced F to G.
Twelfth nw., intersection G	Asp. H. B	1881	198					
Twelfth nw., N to O	do	1881	1,522		.015			
Twelfth nw., O to Rhode Island ave	do	1883	1,859		.041			
Twelfth nw., Rhode Island ave. to Vermont	Coal tar	1887	2,304	1905	.064			
Twelfth nw., R to S	do	1888	1,798		.011			
Twelfth nw., S to V	Asp. B. B	1890	5,377		.014		.008	
Twelfth nw., V to Florida ave	Asp. H. B	1891	3,554		.0038			
Twelfth ne., Lincoln sq., northward	do	1895	580		.007			
Twelfth ne., extension to 144 feet north of B	do	1898	1,737				.041	
Twelfth ne., C to Maryland ave	Macadam	1901	4,770					
Twelfth ne., Maryland ave. to H	do	1890	4,374					
Twelfth ne., H to Florida ave	do	1890	3,543					
Montello ave., Twelfth ne., Florida ave. to Mount Olivet rd.	do	1898	10,544					
Twelfth ne., Detroit to Bunker Hill rd	do Gravel	1894	11,600 13,758					
Twelfth se., East Capitol to Pennsylvania ave	do	1895	11,305					
Twelfth sw., Pennsylvania ave. to Ohio ave	Belgian block	1872	10,708					
Twelfth sw., B to Potomac River	do	1872						
Twelfth sw., B north to B south	do	1872	8,187					
Thirteenth nw., B to C	Asp. H. B	1878	1,760	1892	.113	.064	.04	
Thirteenth nw., C to Pennsylvania ave	Coal tar	1875	3,037	1887	.031	.03	.034	
Thirteenth nw., Pennsylvania ave. to E	Asp. H. B	1878	685		.055		.017	
Thirteenth nw., E to F	Granite	1878	1,741					
Thirteenth nw., F to P	Coal tar	1873	15,682	1880 1889 1906		.015	.016	Resurfaced F to H.
Thirteenth nw., around Iowa Circle	do	1873	8,838	1885	.015	.016	.034	

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Thirteenth nw., P to Corcoran	Asp. H. B	1881	2,126		$0.017			
Thirteenth nw., Corcoran to T	do	1884	4,273	1905	.055			
Thirteenth nw., T to Florida ave	Asp. H. B	1891	7,721		.006			
Thirteenth nw., Florida ave. to Clifton	Macadam		2,700					
Thirteenth nw., Clifton to Euclid	Asp. block	1907	2,262					
Thirteenth nw., Euclid to Park rd	Macadam	1896	4,300					
	Gravel	1898	8,000					
Thirteenth nw., Park rd. to Spring rd	do		5,800					
Thirteenth ne., Emerson st. to Maryland ave	Asp. B. B	1892	1,725					Repairs $25.66.
Thirteenth ne., Maryland ave. to H	Macadam		1,800					
Thirteenth ne., H to I	Gravel		1,000					
Thirteenth se., East Capitol to D	do	1896	11,113					
Thirteenth se., D to Pennsylvania ave	Macadam	1891	2,638					
Thirteenth sw., B to Maryland ave	Coal tar	1875	5,706	1891	.0345	$0.026	$0.023	
Thirteen-and-a-half nw., B to E	Cobble		3,300					
Thirteen-and-a-half sw., B to D	Asp. block	1895	3,016					
Fourteenth nw., B to Pennsylvania ave	Coal tar	1887	8,852	1894		.044	.055	Resurfaced C to D.
Fourteenth nw., Pennsylvania ave. to F	Granite	1884	1,734					
Fourteenth nw., F to New York ave	Coal tar	1873	3,732	1894	.014	.043	.055	
				1882				
Fourteenth nw., New York ave. to H	do	1874	850	1891		.03	.035	
				1895				
Fourteenth nw. (east side), H to Florida ave	Asp. H. B	1879	29,085	1891				
				1893	.048	.013	.023	H to Massachusetts ave., to Florida ave.
Fourteenth nw. (west side), H to M	do	1879	5,682	1893				
				1895	.036	.012	.021	
				1901	.029	.042	.033	Resurfaced T to Florida ave.
Fourteenth nw. (west side), M to Florida ave	do	1882	14,583	1906				West side Rhode Island ave. to R.
				1907				West side R to T.
Fourteenth nw. (east side), Florida to Clifton	do	1889	3,674					
Fourteenth nw., Clifton to Euclid	do	1898	879		.013	.032	.028	
Fourteenth nw. (west side), Florida ave. to Euclid	do	1900	2,723					
Fourteenth nw., Fairmont northward	do	1891	3,725		.012		.016	
Fourteenth nw., extension to Park rd	do	1892	4,307		.016		.067	
Fourteenth nw. (east side), Kenyon to Park rd	do	1894	486		.0045			
Fourteenth nw., Park rd to Piney Branch rd	Macadam	1906	32,000					
Fourteenth ne., East Capitol to E	Gravel		6,600					
Fourteenth ne., E to G	Macadam		3,000					
Fourteenth ne., Maryland ave. to H	do		900					
Fourteenth ne., H to Florida ave	Gravel		450					
Fourteenth se., East Capitol to Pennsylvania ave	do		12,600					

Fourteenth sw., B north to B south	Belgian block	1873	7,841					
Fourteenth sw., B south to alley south of B	Asp. H. B	1899	931		.01	.017	.035	
Fourteenth sw., alley south of B to Maryland ave	Granite	1893	5,653					
Fifteenth nw., B to E	Asp	1894	5,252		.005		.004	On asphalt block.
Fifteenth nw., E to Pennsylvania ave	Asp. H. B	1893	1,792		.07		.20	
Fifteenth nw., Pennsylvania ave. to New York ave	do	1883	4,219		.048		.117	
Fifteenth nw., New York ave. to Vermont ave	Coal tar	1873	7,005	1879		.012	.063	
Fifteenth nw., I to K	do	1873	1,724	1891	.018	.009	.018	
Fifteenth nw., K to Rhode Island ave	Asp. H. B	1881	6,921		.018		.023	
Fifteenth nw., Rhode Island ave. to S	Coal tar	1875	7,516	1887	.021			Q to S.
				1891		.0115	.018	Rhode Island ave. to Q.
Fifteenth nw., S to U	Asp. H. B	1885	3,768		.006			
Fifteenth nw., U to V	do	1895	1,486					
Fifteenth ne., East Capitol to E	Gravel	1895	10,553					
Fifteenth ne., E to H	Asp. H. B	1902	5,130					
Fifteenth se., East Capitol to Pennsylvania ave	Gravel	1893	14,690					
Sixteenth nw., H to Scott sq	Asp. H. B	1881	12,450	1906	03			
Sixteenth nw., Scott sq. to R	do	1882	10,818	1906	.03			
Sixteenth nw., R to 156 feet south of Florida ave	do	1883	12,525	1893	.01			T to U.
				1905		.051		R to U.
Sixteenth nw., 156 feet south of Florida ave. to Chapin.	do	1899	7,194					
Sixteenth nw., Chapin to Columbia rd	do	1904	9,304					
Sixteenth nw., Columbia rd. to Oak	Macadam	1903	16,000					
Seventeenth nw., B to E	do		6,500					
Seventeenth nw., E to New York ave	Asp. H. B	1897	2,573					
Seventeenth nw., New York ave. to Pennsylvania ave.	Asp. B. B	1889	4,847		.051		.064	
Seventeenth nw., Pennsylvania ave. to I	Coal tar	1873	4,958	1894	.04			Pennsylvania ave. to H.
				1902			.045	H to I.
Seventeenth nw., I to Massachusetts ave	do	1873	10,603	1894	.024	.012	.02	Rhode Island ave. to Massachusetts ave.
				1901				
Seventeenth nw., Massachusetts ave. to P	do	1875	2,095	1894	.039	.01		Rhode Island ave. to P.
Seventeenth nw., P to Q	do	1887	1,765	1898	.037	.013		
Seventeenth nw., Q to R	do	1889	1,874	1904	.0296			
Seventeenth nw., R to T	do	1889	2,946		.043		.086	
Seventeenth nw., T to Florida ave	Asp. H. B	1902	4,086					
Seventeenth nw., Lamont to Park road	Macadam		1,100					
Eighteenth nw., Virginia ave. to B	do	1901	2,220					
Eighteenth nw., E to New York ave	Coal tar	1873	1,095	1904	.024			
Eighteenth nw., E to Pennsylvania ave	Asp. H. B	1881	4,895		.026		.028	
Eighteenth nw., Pennsylvania ave. to K	Coal tar	1872	4,515	1880		.021		
Eighteenth nw., K to L	Asp. block	1886	1,431					
Eighteenth nw., L to P	Coal tar	1873	7,584	1889	.017			L to M.
				1895				Massachusetts ave. to P.
				1897		.014	.02	Massachusetts ave. to M.
Eighteenth nw., P to Q	Asp. H. B	1898	1,764			.002		
Eighteenth nw., New Hampshire ave. to S	do	1891	3,130			.002		Repairs, $30.83.
Eighteenth nw., S to Florida ave	do	1892	3,823		.0045			
Eighteenth nw., Florida ave. to Columbia rd	Asp. B. B	1891	3,206		.032		.057	
Eighteenth nw., Florida ave. to Columbia rd	Asp. H. B., 4-inch base	1894	4,406		.063		.15	
	Asp. H. B., 6-inch base	1894	227					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Eighteenth nw., Lamont to Newton	Macadam	1901	3,000					
Nineteenth nw., Virginia ave. to E	do	1901	3,154					
Nineteenth nw., E to Pennsylvania ave	Coal tar	1873	6,421		$0.016		$0.031	
Nineteenth nw., Pennsylvania ave. to K	Granite	1880	3,170					
Nineteenth, K to M	do	1885	3,726					
Nineteenth, M to N	do	1882	1,894					
Nineteenth, N to Dupont circle	Asp. H. B	1881	2,409		.031		.048	
Nineteenth, P to Florida ave	Coal tar	1873	7,598	1878				
				1891				Q to R.
				1894				P to Q.
				1902		$0.006	.016	R to Florida ave.
Nineteenth, Florida ave. to Columbia rd	Asp. H. B	1900	5,274					
Nineteenth, Biltmore to Calvert	do	1900	1,066					
Nineteenth, Columbia rd. to Kalorama rd	do	1904	519					
Nineteenth, north of Kalorama rd	do	1904	494					
Twentieth nw., Virginia ave. to E	Macadam	1901	2,433					
Twentieth nw., E to Pennsylvania ave	Coal tar	1873	5,579	1875				
				1899	.017			F to Pennsylvania ave.
				1904				E to F.
Twentieth nw., Pennsylvania ave. to I	Asp. H. B	1879	981		.016			
Twentieth nw., I to K	Granite	1879	1,349					
Twentieth nw., K to P	Coal tar	1873	8,201	1880				L to New Hampshire ave.
				1894	.055	.006	.005	K to L.
				1896		.005	.018	New Hampshire ave. to P.
Twentieth nw., P to Connecticut ave	do	1873	2,167	1878				
				1896	.065	.005		
Twentieth nw., R to S	Asphalt	1889	1,995		.007		.028	Cobble base.
Twentieth nw., S to Florida ave	Asp. H. B	1903	1,140					
Twentieth nw., Biltmore to Calvert	Asp. block	1901	845					
Twentieth ne., Queens Chapel to Brentwood	Macadam	1904	5,000					
Twenty-first nw., E to Virginia ave	do	1901	1,460					
Twenty-first nw., E to Pennsylvania ave	Coal tar	1873	6,101	1875				
				1899	.024	.04		F to Pennsylvania ave.
Twenty-first nw., Pennsylvania ave. to K	Granite	1879	1,395					
Twenty-first nw., K to Massachusetts ave	Coal tar	1875	10,892	1891	.021	.016	.019	
Twenty-first nw., O to Hillyer pl	Asp. block	1884	956					
Twenty-first nw., Hillyer pl. to R	Coal tar	1887	988	1902	.057			
Twenty-first nw., R to Florida ave	Asp. B. B	1890	1,483					
Twenty-second nw., New York ave. to Virginia ave.	Macadam	1901	3,572					
Twenty-second nw., Virginia ave to F	Asp. H. B	1899	884					
Twenty-second nw., F to G	Asphalt	1892	1,406					Cobble base.

Twenty-second nw., G to Pennsylvania ave	Coal tar	1873	4,641	1878				
				1894	.028	.074		G to I.
				1900			.009	I to Pennsylvania ave.
Twenty-second nw., K to M	Asp. H. B	1885	2,852		.023		.046	
Twenty-second nw., M to O	Asp. B. B	1890	3,894	1907	.021		.032	Resurfaced M to P.
Twenty-second nw., O to P	do	1889	1,586	1907	.031		.08	
Twenty-second nw., P to Massachusetts ave	Asp. H. B	1896	2,668		.004		.023	
Twenty-second nw., Massachusetts ave. to R	do	1896	2,128					
Twenty-second nw., Decatur to S	Asp. block	1903	216					
Do	Asp. H. B	1903	243					
Twenty-second ne., Channing to Franklin	Macadam	1901	4,050					
Twenty-third nw., Virginia ave. to E	Asp. H. B	1900	1,814					
Twenty-third nw., F to G	Cobble	1874	1,103					
Twenty-third nw., G to I	Asp. H. B	1902	2,539					
Twenty-third nw., I to Pennsylvania ave	do	1890	1,425					Cobble base.
Twenty-third nw., K to L	Asp. block	1886	587					
Twenty-third nw., L to M	Asp. H. B	1901	1,800					
Twenty-fourth nw., E to F	do	1903	1,783					
Twenty-fourth nw., G to Pennsylvania ave	Cobble	1874	5,192					
Twenty-fourth nw., Pennsylvania ave. to M	Asp. H. B	1900	2,456					
Twenty-fourth ne., B. & O. R. R. to Franklin	Macadam	1901	3,000					
Twenty-fifth nw., H to K	Asp. H. B	1898	3,739		.014		.022	
Twenty-fifth nw., K to Pennsylvania ave	Asp. B. B	1890	1,163		.043		.078	
Twenty-fifth nw., Pennsylvania ave. to M	do	1890	1,693		.032		.114	
Twenty-sixth nw., G to K	Cobble	1874	5,042					
Twenty-sixth nw., K to Pennsylvania ave	Granite	1882	1,680					
Twenty-sixth nw., Pennsylvania ave. to M	Coal tar	1877	919		.029		.189	
Twenty-seventh nw., M to P	Macadam	1898	4,100					
Twenty-eighth nw., M to Dumbarton	Asphalt	1894	2,879					Cobble base.
Twenty-eighth nw., Dumbarton to P	Asp. H. B	1894	1,551					4-inch base.
Twenty-eighth nw., P to Q	Asp. B. B	1890	1,474					Repairs, $17.56.
Twenty-eighth nw., Q to R	Macadam		2,350					
Twenty-ninth nw., K to M	Cobble	1874	2,919					
Twenty-ninth nw., M to N	Granite	1882	1,885					
Twenty-ninth nw., N to P	Asp. H. B	1893 / 1894	2,966					N to Dumbarton. / Dumbarton to P.
Twenty-ninth nw., P to Q	Asp. B. B	1890	1,261					Repairs, $48.05.
Twenty-ninth nw., Q to R	Asp. block	1901	2,322					
Thirtieth nw., Virginia ave. to K	Asp. H. B	1901	985					
Thirtieth nw., K to C. and O. Canal	do	1905	1,740					
Thirtieth nw., C. and O. Canal to M	do	1899	1,116					
Thirtieth nw., M to N	Granite	1879	2,121					
Thirtieth nw., N to P	Asp. H. B	1883	2,932		.051		.046	
Thirtieth nw., P to Q	Asp. B. B	1888	1,282		.012		.005	
Thirtieth nw., Q to R	Granite	1883	8,746					
Thirty-first nw., K to C. and O. Canal	Coal tar	1887	1,209		.015			
Thirty-first nw., M to N	Granite	1880	1,742					
Thirty-first nw., N to P	Asp. H. B	1893	3,338		.0018			Repairs, $11.10.
Thirty-first nw., P to R	do / Granite	1885	1,862 / 3,285		.012			
Thirty-second nw., P to R	Asp. block	1895	3,849					
Thirty-third nw., K to M	Cobble		1,650					

TABLE D.—*Descriptive list of street pavements and suburban roadways, with repairs to asphalt pavements, to July 1, 1907*—Continued.

Street.	Kind of roadway.	Year laid.	Square yards.	Year resurfaced.	Repairs, average annual cost per square yard.			Remarks.
					Prior to resurfacing.	Since resurfacing.	Current year.	
Thirty-third nw., M to N	Asp. B. B	1890	1,580		$0.002		$0.017	
Thirty-third nw., N to P	Asp. H. B	1883	2,050	1904	.052		.063	Resurfaced O to P.
Thirty-third nw., P to Wisconsin ave	Asp. B. B	1890	4,675		.0019			
Thirty-fourth nw., M to N	do	1890	1,660					Repairs, $36.25.
Thirty-fourth nw., N to P	do	1891	2,109					Repairs, $13.54.
Thirty-fourth nw., P to Q	do	1890	2,264					Repairs, $22.90.
Thirty-fourth nw., Q to Wisconsin ave	Macadam	1892	6,570					
Thirty-fourth, Woodley rd to Newark	Gravel		3,500					
Thirty-fifth nw., M to Prospect	Cobble		850					
Thirty-fifth nw., Prospect to N	Asp. B. B	1890	1,017					Repairs, $23.90.
Thirty-fifth nw., N to P	Coal tar	1887	2,929		.018			
Thirty-fifth nw., P to Volta pl	do	1887	1,558	1901	.057			
Thirty-fifth nw., Volta pl to R	Asp. B. B	1890	5,749		.019			
Thirty-fifth nw., R to Wisconsin ave	Asp. H. B	1891	6,009		.006		.016	
Thirty-fifth, Woodley rd to Newark	Gravel		3,500					
Thirty-sixth nw., Prospect to O	Asp. B. B	1891	2,368					
Thirty-sixth nw., O to P	do	1900	707					
Thirty-sixth, Woodley rd to Newark	Gravel		3,500					
Thirty-eighth, Garfield to Tunlaw rd	Asphalt		1,500					
	Macadam		1,500					
Thirty-ninth, Garfield to Tunlaw rd	Asphalt		900					
	Macadam		1,500					

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ETS AND AVENUES.

Old cobble and granite removed.	Old curb removed.	Curb reset.	Cu	Contract.
Square yds.	*Linear ft.*	*Linear ft.*	*Lin*	
2,046.00	932.36	252.55		Washington Asphalt Block and Tile Co.
180.00				Brennan Construction Co.
298.00	898.26	23.54		Washington Asphalt Block and Tile Co.
	61.00	327.30		Cranford Paving Co.
		71.37		Do.
22.00				Brennan Construction Co.
1,219.00	45.50	43.62		Washington Asphalt Block and Tile Co.

S AND SUBURBAN STREETS

				Geo. B. Mullen.
1,641.90				Do.
				Do.
				Day labor.
733.00	30.00	777.34		Washington Asphalt Block and Tile Co.
483.00	43.34	1,025.51		Do.
				Lewis N. Simpson.
563.00	102.00	1,009.00		Washington Asphalt Block and Tile Co.
				Day labor.
				Washington Asphalt Block and Tile Co.
				Do.
				Lewis N. Simpson.
				Geo. B. Mullen.
87.00	250.00	21.13		Washington Asphalt Block and Tile Co.
		46.50		Geo. B. Mullen.
				Do.
				Do.
				Do.
			1,	Do.
		25.00	1,	Do.
				Do.

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curb amounting to $11,355.33; pai

	Total cost of repairs.	Nal pavement. Vitrified block gutters.	Grading and removing old material.	N	Year laid.	Contractor.	Completed.
		Square yds.	*Cubic yds.*				
Eigl	$231.44	.....	.....	...	1883	Barber Asphalt Co.	May 19, 1906
K n	507.28	.....	.....	...	1895 1873	T. P. Morgan	May 18, 1906
R n	438.71	558.45	86.00	...	1884	Barber Asphalt Co.	Sept. 11, 1906
Q n	246.52	349.47	80.00	...	1888	Cranford Paving Co.	July 20, 1906
L n	133.60	523.37	157.44	...	1883	Barber Asphalt Co.	May 27, 1907
H s	863.75	150.54	30.00	...	1883	....do....	Jan. 5, 1907
L n	766.67	216.71	72.00	...	1877	Cranford & Hoffman	May 4, 1907
M n	886.09	1,003.07	514.00	...	1882	A. L. Barber	May 15, 1907
G n	508.60	265.23	375.00	...	1895 1872	Abbot Paving Co.	May 10, 1907
N n	133.89	786.74	197.00	...	1883	Barber Asphalt Co.	Sept. 24, 1906
Twe	062.72	154.68	56.00	...	1889 1879	Cranford & Hoffman	Apr. 26, 1907
Tent	912.84	969.48	310.00	...	1883	Barber Asphalt Co.	July 26, 1906
Fift	490.43	442.73	345.00	...	1889	....do....	Aug. 6, 1906
Twe	135.29	305.02	76.00	...	1883	....do....	Sept. 27, 1906
P n	258.79	259.83	48.00	...	1883	....do....	Do.
C sw	626.34	422.79	70.00	...	1885 1888	P. Maloney	Nov. 22, 1906
Sixt	240.31	1,173.64	451.00	...	1881	A. L. Barber	Nov. 1, 1906
New	495.14	175.23	35.00	...	1885	H. L. Cranford	Dec. 10, 1906
Sixt	870.12	359.82	55.00	F.	1880 1878	Mohler & Reynolds J. S. Baldwin	Dec. 6, 1906
H n	249.67	320.31	103.00	...	1886 1872	L. S. Filbert	Dec. 31, 1906
I nw	882.54	594.51	[c] 594.50 24.50	...	1886	Barber Asphalt Co.	June 11, 1907
Con	860.69	432.53	75.00	...	1884 1873	C. E. Evans	Nov. 6, 1906
Ten	794.36	150.04	29.50	...	1880	J. S. Baldwin	Mar. 30, 1907
H n	533.18	208.55	56.00	...	1888 1881	John Cudmore	Nov. 19, 1906
Twe	463.81	968.24	400.00	...	1889	Barber Asphalt Co.	Sept. 5, 1906
Fou	232.95	298.66	60.00	...	1882	A. L. Barber	Sept. 10, 1906
Pen	.....	.....	.....	...			
	825.73	11,089.64	3,704.94				

k and granite.

Minor repairs.

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TABLE G.—*Work of paving and repairs to asphalt pavement chargeable to street railroads for year ending June 30, 1907.*

WASHINGTON RAILWAY AND ELECTRIC COMPANY.

Location.	Amount.	Location.	Amount.
NEW WORK AND GENERAL RESURFACING.		MINOR REPAIRS—continued.	
Connecticut avenue, K to Jefferson place	$684.94	G street se	$307.16
G street nw, Twelfth to Thirteenth	443.58	H street nw	609.52
H street nw, Thirteenth to Fourteenth	147.37	H street ne	476.62
H street nw, Vermont avenue to Connecticut avenue	362.15	Indiana avenue	8.38
Seventh and Ninth streets intersection of K street	45.88	K street nw	53.20
Intersection of Eleventh and P streets	34.32	M street nw	29.27
Intersection of F and G streets at Sixth	38.15	Massachusetts avenue	126.32
Intersection of F and G streets at Tenth	60.08	Missouri avenue	392.86
Intersection of F and G streets at Twelfth	47.16	New Jersey avenue	44.85
Total	1,863.63	New York avenue	468.51
MINOR REPAIRS.		North Capitol street	226.17
B street nw	575.07	P street nw	387.89
B street sw	172.01	Pennsylvania avenue	85.06
B street ne	47.08	R street ne	27.57
Benning road	5.92	W street nw	26.64
C street ne	247.94	First street nw	122.75
Canal street	210.77	Third street ne	62.57
Connecticut avenue	1,253.51	Fourth street nw	252.39
D street nw	307.07	Fourth street ne	896.03
Delaware avenue	79.98	Four-and-a-half street sw	1,059.91
Dumbarton street	5.18	Fifth street nw	148.91
E street nw	213.52	Sixth street nw	450.83
E street se	80.40	Eighth street se	6.95
East Capitol street	113.16	Ninth street nw	1,050.06
F street nw	812.71	Eleventh street nw	200.20
Florida avenue	113.55	Fourteenth street nw	290.14
G street nw	360.54	Fifteenth street nw	50.92
		Seventeenth street nw	35.66
		Thirty-second street nw	29.27
		Total	12,525.02
		Grand total	14,388.65

CAPITAL TRACTION COMPANY.

NEW WORK AND GENERAL RESURFACING.		MINOR REPAIRS—continued.	
H street nw, Thirteenth to Fourteenth	$13.39	Pennsylvania avenue	$201.16
R street nw, Twelfth to Fourteenth	16.54	Washington circle	2.71
Fourteenth street nw, R to T	212.97	Seventh street nw	74.27
Total	242.90	Fourteenth street nw	38.93
MINOR REPAIRS.		Fifteenth street nw	51.06
B street se	10.85	Seventeenth street nw	7.15
C street nw	20.28	Twenty-fifth street nw	11.84
G street nw	24.91	Twenty-sixth street nw	21.95
M street nw	252.53	Total	718.38
New York avenue	.74	Grand total	961.28

Repairs to Capital Traction Railroad are mostly made directly by railroad company.

WASHINGTON, ALEXANDRIA AND MOUNT VERNON COMPANY.

Fourteenth street nw	$33.79

TABLE H.—*Work done by day labor under appropriation "Current repairs to streets, avenues, and alleys" from July 1, 1906, to June 30, 1907.*

Location.	Amount.	Location.	Amount.
Brick sidewalk relaid...square yards	$10,760.00	Granite block laid.....square yards	$1,792.50
Asphalt block repaved.....do	5,769.00	Asphalt tile relaid.....do	530.00
Asphalt block paved.....do	578.00	Grading.....cubic yards	4,625.00
Vitrified block paved.....do	360.00	Graveling.....square yards	1,501.00
Vitrified block repaved.....do	2,491.00	Macadam roadway.....do	3,110.00
Cobble paved.....do	6,583.00	Cement walk relaid.....do	752.77
Curb set.....linear feet	55.02		
Curb reset.....do	1,685.02	Labor	$22,331.21
Flag laid.....do	225.00	Material	$2,768.32
Flag relaid.....do	1,935.00	Dangerous holes repaired	3,460

TABLE I.—*Regular*

Job No.	Location	For whom done.	Grading.	Cement sidewalk.
			Cu. yds.	*Sq. yds.*
2090	South side of Q st. ne., between Eckington place and First st., 1906.	Saml. C. McDowell		35.67
2091	3154 Highland ave., 1906	John J. Noonan	16.00	28.89
2093	3100 to 3108 Eleventh st. nw., 1906	Louis Steerman		82.13
2106	1015 to 1017 Euclid st., 1906	John L. Warren		40.32
2115	South side of U and Rhode Island ave. ne., 1906.	David Moore	314.00	332.73
2129	Southwest corner Tenth and B sts. sw., 1906.	G. S. Fraser		140.81
2131	Lots 18, 19, 20, block 2, Kalorama Heights, 1906.	Chr. Hauge		139.46
2001	West side Avon place, lots 144 to 154	Barber & Ross		
2002	214-216 Maryland ave. ne	Henry M. Foote		
2003	1424 Wisconsin ave	E. S. Fowler		26.37
2006	W st. side 2200 Fourth st. ne	J. A. Duvall		51.34
2007	Northeast corner Twentieth and R sts. nw.	Jos. E. Thropp	1.50	80.36
2008	Both sides Emerson st., between Piney Branch rd. and Iowa ave.; west side Iowa ave., between Emerson and Delafield place, and north side Delafield place, between Iowa ave. and Fifteenth.	B. F. Saul		1,074.12
2009	Twenty-third st. side 2301 S st. nw	W. A. Mearns	307.00	156.30
2010	1812 I st. nw	Ellen P. Richardson		43.83
2012	South side of E st. nw., between Twenty-third and Twenty-fourth.	Surgeon-General o. Navy	475.00	380.33
2015	Eighteenth and R st. fronts of 1624 Eighteenth st. nw.	R. J. Hunter	136.57	
2017	Ferry wharf, Seventh st. sw., between L and M.	W. B. Holtzclaw	3.00	
2018	3110 N st. nw	Mary L. Hughes		25.72
2019	Second st. se., between L and M	Eliz. Nottingham		
2020	429 to 433 Irving st	N. T. Haller Co		33.33
2021	514 Eleventh st. nw	Geo. A. Fuller Co		
2022	East side Second st. nw., between U and V.	Fred. W. Reeves	34.00	31.95
2023	1701 Massachusetts ave. nw	Edwin Gilbert Co	8.00	
2024	Alley, block 3, Brightwood Park	H. S. Omohundro		
2025	Both sides Third st. sw., between E and Virginia ave.	P., B. & W. R. R. Co		
2026	West side Third st. nw., Florida ave. to Rhode Island ave.	E. S. Gummel		202.74
2027	Sixteenth and M st. sides, southeast corner Sixteenth and M sts.	Ward Thoron	147.81	
2028	Alley, square 875	J. E. Briggs	112.00	
2029	307-309 Kentucky ave. and 1321-1329 South Carolina ave. se.	Chas. C. Meads		240.32
2030	Southeast corner Fifteenth and M sts. nw.	Fred Drew	11.00	
2031	South side M st. se., between Sixth and Seventh sts.	Authorities of navy-yard		
2032	3110 to 3114 Eleventh st. nw	J. H. Grant	7.50	
2033	North side Euclid st. from Ontario ave. west.	Mary I. May	130.00	137.74
2034	Trinity College, Michigan ave	Chas. W. Darr	30.00	
2035	Alley in square 552	James F. Brennan	221.00	
2037	Alley, square 2608, Mt. Pleasant	Davidson & Davidson	265.00	
2038	1802 R st. nw	Arthur B. Pugh		21.33
2039	1804 R st. nw	Otto Leubkert		19.39
2040	1806 R st. nw	Dwight Dickinson		18.68
2041	1808 R st. nw	Thos. W. Smillie		20.60
2042	East side Second st. nw., between Adams and Bryant.	Jos. Paul	29.00	
2043	1110 G st. nw	Hugo Worch		
2044	1810 R st. nw	Mrs. Max Weyl		20.95
2045	3101 to 3125 Eighteenth st. nw	Wm. H. Sorrel	32.00	
2046	704 and 704½ Ninth st. nw	Mary Hall		42.39
2047	Morgan st. nw., lots 80 to 88, square 555	A. P. Clark, jr		127.32
2048	West side Eleventh st. nw., between Kenyon and Lamont.	Jos. J. Morbs		
2049	1811 R st. nw	J. K. Mock		20.83
2050	628 to 634 D st. nw	R. P. Andrews Paper Co		75.86
2051	Sherman ave., corner Harvard	Wm. L. Agnew		48.30
2052	Alley, square 67	Chas. Early, agent	25.00	
2053	2111 Q st. nw	R. J. Beall Cons. Co		
2055	Fourteenth st. ne., between East Capitol and alley north.	W. B. Kirtley		
2056	South side of S st. nw. from Nineteenth to alley east.	Alex. Britton		139.35
2057	Alley abutting lot 7, Square 1001	John Appich	285.70	
2058	905 to 919 Columbia road	Mrs. Augusta Seibel		115.72
2060	Homeopathic Hospital, Kirby st	Dr. Rudolph Jenkins		50.52

permit, 1007.

Curb reset.	Curb set.			Vitrified block paved.	Asphalt block paved.	Brick sidewalk paved.	Brick sidewalk repaved.	Granite block.	Cost.
	6 by 20.	8 by 8.	Old.						
Lin. ft.	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	
									$40.82
			72.80						60.09
	92.13								196.19
	50.93								104.69
	441.98		24.61						1,005.45
	138.80								178.37
88.75	63.75		6.00						253.70
197.00						122.00	69.00		176.85
				38.00					69.37
34.80									41.25
	18.71								87.79
			11.00						102.51
									1,229.33
		244.00							666.03
									62.18
13.00		96.00							759.70
18.00									169.65
				61.00				4.00	84.76
									33.60
						33.00	5.00		35.26
									43.53
	47.52								58.44
		41.38							97.40
		135.51							180.00
									50.00
									148.11
		136.35							421.89
		135.08							344.54
	9.42			208.00					487.66
	241.73								555.39
		208.15							263.11
						477.67			161.12
	62.90								75.16
20.00	4.71								277.15
			24.00			112.00			40.42
									98.96
12.00	28.42			387.00					821.36
14.00									27.60
10.00									24.66
16.80									24.88
14.00									26.76
226.00	56.86								157.31
		29.18							40.00
19.50									30.11
5.50	259.00								319.23
31.40									65.37
									151.59
		164.00							172.49
18.00									27.63
45.00									112.63
									63.08
					808.00				246.14
		35.00							41.19
		124.00							147.75
									168.02
									75.00
									137.79
17.70									69.70

TABLE I.—*Regular*

Job No.	Location.	For whom done.	Grading.	Cement sidewalk.
			Cu. yds.	*Sq. yds.*
2061	Ontario rd., between Columbia rd. and Euclid st.	L. E. Newton		23.97
2063	1011-1013 Euclid st. nw	J. C. K. Campbell		24.09
2064	3206-3208 N st. nw	Fred. Stohlman		23.67
2065	1307-1309 G st. nw	Arms & Drury		
2066	Scott circle, side of 1334 Sixteenth st. nw.	O. G. Staples		72.82
2067	North side R st. nw., between Twenty-second and Twenty-third.	Gardner F. Williams		56.96
2068	Lot 56, block 13, Walbridge sub	L. E. Bruninger	281.00	
2070	Front car barn, Eleventh and Decatur sts.	Capl. Trac. Co	65.00	
2073	1824, 1826, 1828 I st. nw	Geo. W. Guthrie		69.80
	Total		2,937.08	4,277.04

permit, 1007—Continued.

Curb reset.	Curb set.			Vitrified block paved.	Asphalt block paved.	Brick sidewalk paved.	Brick sidewalk repaved.	Granite block.	Cost.
	6 by 20.	8 by 8.	Old.						
Lin. ft.	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	
									$25.17
	41.36								81.95
									33.01
		31.20							35.55
									95.12
									74.40
									118.02
		265.00							258.63
									98.97
801.45	1,558.22	1,644.85	138.41	694.00	808.00	744.67	74.00	4.00	12,431.58

TABLE K.—*Assessment*

Job No.	Location.	Grading.	Cement sidewalk.	Curb reset.
		Cu. yds.	*Sq. yds.*	*Lin. ft.*
3047	West side Twelfth st. nw., O to P, and south side of P st., Twelfth to Thirteenth sts. (1906)		488.51	
3059	West side North Capitol st. nw., Florida ave. to O st. (1906)		924.76	14.69
3060	East side North Capitol st. nw., Florida ave. to O st. (1906)		929.97	
3117	East side Twelfth st. nw., from O st to Rhode Island ave. (1906)		481.82	35.22
3190	West side North Capitol st. nw., from New York ave. to O st. (1906)		489.99	
3193	East side Seventh st. nw., between Des Moines and Erie sts. (1906)		223.97	
3195	West side Brightwood ave., lots 1 and 17 to 23, block 4 (1906)		159.40	
3199	South side Evarts st., between Twenty-second and Twenty-fourth sts. (1906)	57.00		
3200	South side Douglas, between Twenty-second and Twenty-fourth sts. and between Twenty-fourth st. and B. and O. R. R. (1906)	114.00	488.78	
3221	South side T st. nw., between Thirty-fifth and east side lot 11, square 141 (1906)		150.67	14.03
3222	East side North Capitol st., between Seaton and T sts. (1906)		334.15	
3224	East side Twenty-second st., between Florida ave. and R st. (1906)		156.67	
3225	East side Sixteenth st. nw., between Massachusetts ave. and M sts. (1906)		671.03	
3226	North side Seaton st. nw., between First and North Capitol sts. (1906)		691.92	39.58
3227	South side R st. nw., between Twenty-second st. and Florida ave. (1906)		198.36	
3230	East side Brightwood ave., between Chesapeake and Flint sts. (1906)		675.45	
3241	East side Wisconsin ave., between Woodley rd. and Milwaukee st. (1906)		249.53	146.16
3250	East side First st. ne., from New York ave. to Florida ave. (1906)		285.38	
3254	Both sides North Capitol st., between M st. and New York ave. (1906)		1,150.17	880.85
3268	West side Eckington place ne., from Florida ave. to Q st. (1906)	119.00	475.76	
3272	East side Massachusetts ave., between Twenty-second and Twenty-third sts. (1906)		731.05	
3276	East side Twenty-second st., between Decatur and S sts. nw. (1906)	25.00	237.23	
3299	North side Florida ave. nw., between R and Decatur sts. (1906)		161.86	
3303	West side Sixteenth st. nw., between Sheridan and Park sts. (1906)		230.83	
3304	Both sides of U st., between Ninth st. and Vermont ave. (1906)		664.54	
3306	Both sides Mount Pleasant, from Newton st. to Park rd. (1906)		648.14	
3311	North side Newark st. nw., between Thirty-third and Thirty-fourth sts. (1906)		268.73	
3318	South side Irving st. nw., between Thirteenth and Fourteenth sts. (1906)		802.22	
3336	First st., side block 3, between S st. and Seaton place nw. (1906)		208.20	
3341	Both sides Tenth st. nw., between O and R sts. (1906)			
3344	East side Twenty-second st. ne., between Douglas and Evarts sts. (1905)	95.00	240.37	
3345	West side Twenty-fourth st. ne., between Douglas and Evarts sts. (1906)		234.16	
3377	East side Eighteenth st. nw., between Park rd. and Newton st. (1906)		442.14	
3379	South side Rhode Island ave. nw. from Florida ave. to Third st. (1906)		203.00	5.00
3380	South side Newton st., Brookland, between Ninth st. and B. and O. R. R. (1906)		120.00	
3383	North side Euclid st., between Eleventh st. and west line lot 26 (1906)		132.98	
3001	South side Linden st. ne. from Thirteenth st. west		121.83	80.00
3002	East side Phelps place, between Le Roy and California sts.	20.00	99.32	
3003	Both sides Newton place nw. from Brightwood ave. east		400.09	31.40
3005	Both sides Twentieth st. nw. from E st. to New York ave.		521.48	624.80
3007	North side K st. nw. from Seventh to Ninth sts		3,517.93	3,236.00
3009	Both sides Twentieth st. nw. from E to F sts		418.85 760.24	410.00 110.00
3013	South side E st. nw. from Virginia ave. to Twenty-first st		104.50	196.70
3014	North side E st and Virginia ave. nw. from Twenty-first to Twenty-second st		479.35	300.00
3015	North side Virginia ave. nw., Twenty-first to E sts		146.70	
3016	North side New York ave. nw., Nineteenth to Twentieth st		292.61	
3017	West side Nineteenth st. nw., E st. to New York ave		129.62	
3018	Both sides T st. nw., Eighteenth to Nineteenth sts		1,050.85	
3020	South side Franklin st. ne., Twelfth to Thirteenth sts		410.98	
3022	Both sides Fifth st. nw., between O and R sts			
3023	Both sides H st. nw., between Thirteenth and Fourteenth sts.			83.01
3024	Both sides N st. nw., between Sixth and Seventh sts			91.50
3027	North side W st. nw. from First st. west to alley		85.21	113.71
3028	South side Massachusetts ave. nw., from Twenty-third st. westward		986.66	

and permit work, 1907.

Curb set.			Vitrified block paved.	Asphalt block paved.	Cobble.	Flag laid.	Brick sidewalk relaid.	Cost.
6 by 20.	8 by 8.	Old.						
Lin. ft.	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Lin. ft.*	*Sq. yds.*	
		6.98						$977.31
								983.76
	509.98							1,147.52
								521.48
								256.33
								182.43
								22.80
								622.50
								174.68
								357.96
								164.63
								656.93
	767.61							1,722.06
								208.09
		77.07						907.06
								319.53
		5.90						306.84
14.13		10.30						1,412.12
								554.12
								778.20
								272.31
								168.08
								264.18
								707.06
	901.4							1,756.41
								307.56
								833.07
	219.08							478.29
	2,585.28							3,215.29
								322.55
								267.99
								508.13
		10.40						217.81
								140.22
209.32								391.43
								139.11
								122.07
		765.00						682.31
10.00								784.52
50.24		102.00						5,062.53
18.84								627.43
								958.17
								182.49
61.00								665.78
								174.67
								348.41
								154.34
								1,258.60
								473.24
	1,747.13							2,109.74
	899.42							1,173.61
1,846.75								2,332.81
	14.63							142.58
								1,176.91

TABLE K.—*Assessment and*

Job No.	Location.	Grading.	Cement. sidewalk.	Curb reset.
		Cu. yds.	*Sq. yds.*	*Lin. ft.*
3029	Both sides New Hampshire ave. nw., between Dupont circle and Q st			
3030	East side Eighteenth st. nw., from F to G sts		194.07	17.00
3031	West side Fourteenth st. nw., from Monroe to Lenman tract		565.58	
3032	Alleys, block 35, add. Le Droit park and block 6, Dobbins add	59.00		9.42
3033	Alleys in square 1037	306.00		
3034	Alleys, block 6, Chapin Brown's subdivision, Ingleside, and S. P. Brown's subdivision, Mt. Pleasant	670.00		
3035	Alley entering square 428, from Eighth st			
3050	Both sides Seventeenth st. nw., from M st. to Rhode Island ave		541.89	510.00
3056	Both sides Seventeenth st. nw., K to L		624.14	17.90
3057	Both sides K st. se., from Sixth to Seventh sts			
3058	Alleys in square 903	129.00		18.00
3059	Brick sidewalks adjacent to cement walks			
3060	Alleys in square 104	120.00		
3061	Alleys in square 203	510.00		
3062	Alleys, block 2, Commissioners' subdivision of Washington Heights	1,300.00		
3064	Alley square 757			
3067	Alleys in square 79	141.00		19.50
3068	Alleys southern part of square 70	241.00		9.20
3069	Adams Mill road, north of Ontario ave	90.00		
3071	Both sides Second st. se., from N to river			
3072	Both sides Randolph st. nw., between First and alley east		219.23	327.15
3073	West side Fourteenth st. nw., between R and T sts			
3074	South side Euclid place, between Univ. place and Col. ave. and north side Erie st., between Col. ave. and Sixteenth st	373.00	471.60	
3075	West side Center st., between Oak and Fourteenth st. rd	953.00	158.08	
3076	Alley, square 70, north from Ward place	472.00		
3078	Both sides Seventh st. ne., from Maryland ave. to H		3,529.91	
3081	Alley, square 210	102.00		
3084	Both sides New Hampshire ave. nw., from P to Q		109.73	
3086	North side Euclid st., between Thirteenth and Fourteenth sts		112.84	
3092	Both sides Twenty-second st. nw., from M to P		2,914.96	
3093	Both sides of N st. nw., from Sixth to Ninth sts			
3094	West side Fourteenth st. nw., from S to T			
3096	East side Third st. se., between C and North Carolina ave			
3097	Both sides Eighth st. nw., from L to M			
3098	North side Massachusetts ave. nw., from Decatur st. to Twenty-fourth, and east side Twenty-fourth from Massachusetts ave. to S st		136.72	67.00
3102	Both sides Sixteenth st. nw., from H to M		4,762.06	
3103	Alley, square 367	137.00		
3104	Alley, block 19, Dobbins's addition, square 3122	140.00		
3105	Alley, block 3, Meridian Hill	372.00		
3106	Alley, bounded by Ontario place, Clyesdale, Ontario road, and Adams Mill road	1,608.00		
3107	Alley, block 12 Le Droit Park	320.00		45.00
3108	Alleys in square 192	16.00		
3113	Both sides of T st. nw., from Seventeenth to Eighteenth		1,791.95	
3114	North side Ward place, from New Hampshire ave. to alley west		92.86	
3115	Fourteenth st. and Georgia ave., sides of square 1046	740.00	1,098.59	
3119	Alleys, blocks 41 and 42, Columbia University grounds	62.00		35.42
3125	West side Connecticut ave. nw., between L and M sts	4.95		
3126	South side M st. nw., between Eighteenth and Connecticut ave			8.10
3127	Minor repairs in connection with new sidewalks			
3128	Adjacent to Eleventh and Irving st. nw	2.00		
3129	Alley, square 343			
3131	Alleys, square 1008	365.00		
3136	South side Lamont st., between Sherman ave. and Eleventh st	252.00		15.00
3139	Both sides Tenth st. nw., between F and G			26.71
3140	Alleys, square 758	560.00		
3143	Alleys, block 5, Dobbins's addition, and block 36, addition to Le Droit Park	620.00		
3146	Alley, square 1064	25.00		
3147	Alleys, square 2564, Meridian Hill	520.00		27.00
3148	Both sides of C st. sw., between Ninth and Thirteenth			
3150	**East side Six-and-a-half st. se., from K to L**			
3152	**Alley, block 2661**	228.00		46.00
3153	**Alley, square 220**	39.00		
3154	**Alleys, block 3, Moore & Barbour's addition**	270.00		
3156	**Alleys, square 369**	46.00		
3161	**Both sides Third st. ne. between H and I sts**			
3163	**South side Church st. nw. between Seventeenth and Eighteenth sts**		122.07	12.00
3168	**Alley entrances Georgia ave. between Thirteenth and Fourteenth and Fourteenth between Georgia and K**		66.67	
3169	**South side Sixth st. nw. between F & G sts**			
3187	**Both sides K st. nw. from Sixteenth to Seventeenth sts**		495.63	11.00
3210	**West side Connecticut ave. nw. from R to S**		640.85	40.95

permit work, 1907—Continued.

Curb set.			Vitrified block paved.	Asphalt block paved.	Cobble.	Flag laid.	Brick sidewalk relaid.	Cost.
6 by 20.	8 by 8.	Old.						
Lin. ft.	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Lin. ft.*	*Sq. yds.*	
.....	517.94	.....	.....	.....	.....	.....	.....	$633.76
.....	283.19	.....	.....	.....	.....	.....	.....	579.46
.....	21.22	26.4	.....	.....	.....	.....	.....	1,037.83
.....	.....	.....	431.00	.....	.....	.....	.....	864.39
.....	.....	9.42	630.00	.....	.....	.....	.....	1,112.02
9.42	9.42	.....	1,345.00	.....	.....	.....	.....	2,769.32
.....	.....	.....	.....	.....	.....	.....	.....	78.17
24.00	.....	.....	.....	.....	.....	.....	.....	858.56
.....	597.14	.....	.....	.....	.....	.....	.....	1,484.08
675.12	.....	.....	.....	.....	.....	.....	.....	698.53
.....	.....	.....	.....	1,159.00	.....	.....	9.00	2,076.34
.....	.....	.....	.....	.....	.....	.....	.....	1,320.08
.....	.....	.....	.....	589.00	.....	.....	12.00	1,303.04
.....	.....	72.00	.....	655.00	.....	.....	.....	1,527.39
.....	25.50	.....	598.00	.....	.....	.....	.....	2,377.26
.....	.....	.....	29.00	.....	.....	.....	.....	56.03
9.42	.....	.....	.....	812.00	.....	.....	14.00	1,750.46
6.30	.....	.....	.....	1,139.00	.....	.....	.....	2,102.67
.....	.....	.....	32.00	.....	50.00	.....	.....	173.00
869.80	.....	.....	.....	.....	.....	.....	.....	917.45
6.95	.....	6.28	.....	.....	.....	.....	.....	324.59
.....	912.99	.....	.....	.....	.....	.....	.....	1,127.93
.....	.....	.....	.....	.....	.....	.....	.....	749.74
.....	331.18	.....	.....	.....	.....	.....	.....	642.49
.....	.....	.....	.....	179.00	17.00	.....	.....	588.50
.....	.....	.....	.....	.....	.....	.....	.....	3,738.06
.....	.....	.....	.....	904.00	.....	.....	.....	2,475.00
.....	.....	.....	.....	.....	.....	.....	.....	130.65
.....	.....	.....	.....	.....	.....	.....	.....	122.95
.....	.....	.....	.....	.....	.....	.....	.....	3,434.41
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....
79.67	.....	.....	.....	.....	.....	.....	.....	270.18
.....	3,715.93	.....	.....	.....	.....	.....	.....	9,607.78
.....	.....	.....	.....	1,133.00	25.00	55.00	.....	2,162.83
.....	.....	44.00	480.00	.....	.....	.....	.....	899.29
.....	.....	.....	388.00	.....	.....	.....	.....	968.21
.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	279.00	.....	.....	.....	.....	799.87
.....	.....	.....	628.00	.....	.....	.....	.....	1,295.60
.....	.....	.....	249.00	.....	.....	.....	.....	461.68
.....	.....	.....	.....	.....	.....	.....	.....	2,138.64
.....	.....	.....	.....	.....	.....	.....	.....	121.30
1,351.06	.....	.....	.....	.....	.....	.....	.....	3,109.78
.....	.....	.....	.....	746.00	.....	.....	.....	1,795.96
.....	691.73	.....	.....	.....	.....	.....	.....	1,070.28
.....	122.06	.....	.....	.....	.....	.....	.....	61.49
.....	.....	.....	.....	.....	.....	.....	.....	171.50
.....	.....	.....	.....	.....	40.00	.....	.....	11.50
.....	.....	.....	392.00	.....	.....	.....	.....	740.86
.....	.....	.....	1,238.50	.....	.....	.....	.....	2,483.07
257.42	.....	.....	.....	.....	.....	.....	.....	303.71
.....	372.93	.....	.....	.....	.....	.....	.....	495.75
.....	.....	.....	.....	693.00	.....	.....	.....	1,968.35
.....	30.87	.....	913.00	.....	.....	.....	.....	1,774.75
.....	.....	.....	210.00	.....	.....	.....	.....	409.95
14.13	.....	.....	333.00	.....	.....	.....	.....	1,154.20
1,584.54	.....	.....	.....	.....	.....	.....	.....	1,893.30
257.90	.....	.....	.....	.....	.....	.....	.....	286.97
18.84	.....	.....	.....	792.00	30.00	.....	14.00	1,580.13
9.42	.....	.....	157.00	.....	.....	.....	.....	313.74
9.42	.....	.....	867.00	.....	.....	.....	.....	1,712.26
.....	.....	.....	3,750.00	.....	.....	.....	.....	5,078.98
605.70	.....	.....	.....	.....	.....	.....	.....	726.58
.....	.....	.....	.....	.....	.....	.....	.....	147.24
.....	.....	.....	.....	.....	.....	.....	.....	75.60
.....	290.32	.....	.....	.....	.....	.....	.....	352.88
.....	654.40	.....	.....	.....	.....	.....	.....	1,424.17
.....	524.07	4.15	.....	.....	.....	.....	.....	1,488.53

TABLE K.—*Assessment and*

Job No.	Location.	Grading.	Cement sidewalk.	Curb reset.
		Cu. yds.	*Sq. yds.*	*Lin. ft.*
3211	South side I st. nw. from Vermont ave to Sixteenth		298.28	300.00
3212	North side I st. nw. from Fifteenth to Seventeenth		958.41	976.30
3213	South side I st. nw. from Sixteenth to Seventeenth		496.89	
3218	Both sides Q st nw. between Connecticut and New Hampshire aves		428.16	
3237	North side H st. nw., between Twentieth and Twenty-first sts		420.37	
3238	Both sides H st. nw., between Nineteenth and Twentieth sts		742.96	
3242	South side S st. nw., between New Hampshire ave. and Seventeenth st		166.48	167.00
3244	Both sides Seventeenth st. nw., between L and M		996.67	8.15
3250	South side V st. nw., between New Hampshire ave. and Sixteenth st		245.93	
3259	Both sides Nineteenth st. nw., from Q to R		2,078.81	61.40
3273	West side Fifteenth st. nw., between I and K sts		296.01	
3276	South side M st. nw., between Twenty-third and Twenty-fourth sts			
3277	Both sides M st. nw., between New Hampshire ave. and Twenty-third st			102.02
3278	Both sides Twelfth st. nw., between F and G sts			6.23
3280	Both sides M st. nw., between Twenty-fourth and Twenty-sixth sts.[a]			
3281	Both sides G st. nw., between Twelfth and Thirteenth sts			24.77
3286	East side Seventeenth st. nw., between I and K sts		364.68	358.7
3288	South side P st. nw., from Eleventh to Twelfth sts			
3289	West side Twelfth st. nw., from O to P sts. and south side P st. from Twelfth to Thirteenth sts		488.51	
3291	Alleys in square 1042	640.00		
3293	Alleys bounded by Fourteenth and Sixteenth sts., Park rd. and Monroe st	564.00		
3294	Alleys in square 2582			
3123	Both sides T st. nw., from Eighteenth to Nineteenth sts			
3313	Second st. ne., from H to I sts			
3315	South side Florida ave. nw., between Eighteenth and Nineteenth sts		494.88	39.00
3328	Sidewalks on various streets, repairing			
3362	East side Connecticut ave., between H and I sts		326.93	
3370	E st. nw., between Twenty-fourth and Twenty-fifth sts	150.00		
3314	Alleys, square 2851	165.00		
3357	I st. nw., between Eighteenth st. and Pennsylvania ave.			52.26
3365	Twenty-third st. nw., between F and G sts			
	Total	13,741.95	48,747.36	9,761.01

[a] Done under job 3277.

permit work, 1907—Continued.

Curb set.			Vitrified block paved.	Asphalt block paved.	Cobble.	Flag laid.	Brick sidewalk relaid.	Cost.
6 by 20.	8 by 8.	Old.						
Lin. ft.	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	*Sq. yds.*	*Lin. ft.*	*Sq. yds.*	
.....	.....	.....	.....	.....	.....	.....	.....	$423.62
.....	.....	.....	.....	.....	.....	.....	.....	1,378.68
.....	490.21	.....	.....	.....	.....	.....	.....	1,203.22
.....	332.87	.....	.....	.....	.....	.....	.....	922.21
.....	441.57	.....	.....	.....	.....	.....	.....	1,039.60
.....	683.54	.....	.....	.....	.....	.....	.....	1,723.73
.....	.....	.....	.....	.....	.....	.....	.....	230.63
.....	1,001.78	.....	.....	.....	.....	.....	.....	2,422.25
.....	177.08	.....	.....	.....	.....	.....	.....	503.66
.....	849.60	.....	.....	.....	.....	.....	.....	3,517.95
.....	380.62	.....	.....	.....	.....	.....	.....	817.22
3,297.45	.....	22.46	.....	.....	.....	.....	.....	4,183.02
.....	591.43	.....	.....	.....	.....	.....	.....	768.45
.....	798.11	.....	.....	.....	.....	.....	.....	1,042.19
.....	.....	.....	.....	.....	.....	.....	.....	534.95
.....	283.67	.....	.....	.....	.....	.....	.....	353.37
.....	545.82	.....	.....	.....	.....	.....	.....	1,199.89
.....	.....	.....	729.00	.....	.....	.....	.....	1,862.47
.....	.....	.....	.....	956.50	.....	.....	.....	2,102.69
.....	.....	.....	.....	.....	.....	.....	.....	134.25
.....	909.56	.....	.....	.....	.....	.....	.....	1,120.91
343.48	.....	.....	.....	.....	.....	.....	.....	399.93
.....	.....	.....	.....	.....	.....	.....	.....	616.07
.....	.....	.....	.....	.....	.....	.....	.....	473.13
.....	366.22	.....	.....	.....	.....	.....	.....	836.25
.....	.....	.....	.....	.....	.....	.....	.....	119.50
.....	9.42	.....	286.00	.....	.....	.....	.....	487.00
947.80	.....	.....	.....	.....	.....	.....	.....	1,151.81
638.58	.....	.....	.....	.....	.....	.....	.....	717.37
12,626.70	24,596.92	1,162.36	13,064.50	9,757.50	162.00	55.00	49.00	159,308.18

TABLE L.—*Sidewalks and curbs, 1907.*

Job No.	Location.	Grading.	Cement sidewalk.	Curb reset.	Curb set.			Cost.
					6 by 20.	8 by 8.	Old.	
			Sq. yds.	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	
2509	New Business High School, between Eighth and Ninth sts., R st. and Rhode Island ave. nw. (1906)		1,074.25			1,000.45		$2,211.29
2523	South side of New York ave. east from Fifth st., reservation 178 (1906)		203.84		173.30			227.60
2532	South side of B st. se., between Sixth and Seventh sts., reservation 230 (1906)		168.31				8.00	167.66
2533	West side of North Capitol st. between K and L sts., Blake School (1906)		173.25				123.50	189.87
2534	Tenth st. nw., between O and French sts. (1906)					104.52	100.70	161.76
2535	Reservation south side Massachusetts ave. between Thirteenth and Fourteenth sts. se. (1906)		125.01		122.57			248.65
2501	Canal st. se., between sewerage pumping station and N st				717.68			938.70
2502	Fourteenth st. side Pierce School, southwest corner Fourteenth and G sts. ne. (1906)		230.38				42.00	238.15
2503	North side Bryant st. nw., front of pumping station		330.63					411.30
2504	Reservation 273, intersection of Vermont ave. and V st	13.00				87 94		98.27
2505	North side of P st. nw., between Twelfth and Thirteenth, and west side Twelfth st., between P and Rhode Island ave., reservation 154			15.47		295.94		355.13
2506	Six-and-a-half st. se., between K and L sts., reservations 15 and 16			270.00				47.25
2509	Taylor School, east side Seventh st. between F and G sts. ne.		120 34					120.32
2510	Henry W. Garnett School, U st. between Ninth and Tenth sts. nw. (1906)		205.90					210.83
2511	U st. side of reservation 170 (1906)		133.10					132.93
2512	Eighth precinct police station, U st. between Ninth and Tenth sts. nw. (1906)		85.67					94.57
2515	East side New Hampshire ave. nw., between L and M sts., No. 3 truck house	4.00					60.00	19.46
2516	North side D st. nw., between Fourth and Fifth sts., Judiciary Square (1906)	20.00	641.65	690.80				760.51
2519	Reservation 24, Twenty-fifth, L, and Pennsylvania ave. nw. (1906)		349 56			181.30		553.70
2520	East side Seventh st. nw., from Rhode Island ave. to R st., reservation 158 (1906)		45.67					49.78
2524	West side Fourth st. nw., between D and G sts. (1906)		351.14			438.12		879.14
2526	Reservation at intersection of Sixteenth st. extended and Lamont st	38.00		168.00		309.00		445.73
2527	Reservation at New Jersey ave., New York ave., and M st	12.00			197.37			260.06
2528	Indiana ave. between Fourth and Fifth sts. nw							57.00
2529	Reservation Florida ave. and Twenty-second st., P and Q sts	32.00		76.51	217.99			278.07
2534	Reservation Virginia ave. and E st. nw		148.92	93.70				188.92
	Total	119.00	4,387.62	1,314.48	1,428.91	2,417.27	33.42	9,346.65

TABLE M.—*Miscellaneous work, 1907.*

Job No.	Location.	Appropriation.	Grading.	Cement sidewalk.	Curb reset.	Curb set.			Brick sidewalk relaid.	Cobble.	Cost.
						6 by 20.	8 by 8.	Old.			
			Cu. yds.	*Sq. yds.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	
4301	Massachusetts ave. north of Observatory Circle, Connecticut ave. extended.	Grading and improving Massachusetts ave.									$947.81
4326	Connecticut ave. extended	Grading and improving Connecticut ave.									82.47
4350	Lincoln rd. north of R st	Grading and improving Lincoln rd.	5,000.00							360	2,536.73
4351	Lincoln rd. from north curb line of V st	do									261.40
4352	Lincoln rd. north of R st	do									473.50
4375	Pennsylvania ave. extended	Grading and improving Pennsylvania ave. extended.	5,200.00								1,954.68
4376	Bowen rd., intersection of Pennsylvania ave. extended.	do									311.95
4401	Nichols ave., Anacostia	Grading and improving Nichols ave.									918.80
4476	Girard st	Girard st., between Twelfth st. and Brentwood rd.									221.36
4526	Massachusetts ave. south to Belmont rd.	Grading and improving Massachusetts ave. south to Belmont rd.									772.08
4576	Kalorama rd., from Columbia rd. to Nineteenth st.	Pave Kalorama rd., Columbia rd. to Nineteenth st.	504.00				176.00	103.00			165.67
4601	Rhode Island ave. east of Brentwood rd.	Grading and improving Rhode Island ave.									563.47
4701	Gresham st	Grading and improving Gresham st.									317.18
4726	Monroe st., Fourteenth to Seventeenth sts	Grading and improving Monroe st., Fourteenth to Seventeenth st.	635.00								864.73
4751	Shepherd st. (Philadelphia st.)	Grading and improving Shepherd st									549.04
4776	Lanier pl	Grading and improving Lanier pl									418.11
4826	Monroe st., between Fourteenth st. and Holmead pl.	Grading and improving Monroe st., Fourteenth st. to Holmead pl. and Thirteenth st., Park rd. to Otis st.									553.61
6002	Third st. ne., between Florida ave. and M st., and N st. ne., between Third and Fourth sts.	Elimination of grade crossings									3,129.30
6003	Vicinity of Plaza	do									1,947.34
6004	Third st. ne., between L and M sts	do									853.50
6007	T st. ne., between Fourth and Fifth sts	do									359.39
6008	Delaware ave. ne. between D st. and Plaza	do									1,348.18
6010	Virginia ave. se., intersection Third and Fourth sts.	do									378.33
6014	Fourteenth st. extended	Extension of Fourteenth st. nw., 1906.									1,593.75
6016	H st. se., between New Jersey ave. and Second st.	Elimination of grade crossings				10.58					879.73

TABLE M.—*Miscellaneous work, 1907*—Continued.

Job No.	Location.	Appropriation.	Grading.	Cement sidewalk.	Curb reset.	Curb set.			Brick sidewalk relaid.	Cobble.	Cost.
						6 by 20.	8 by 8.	Old.			
			Cu. yds.	*Sq. yds.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds.*	
6017	Various streets in Anacostia	Grading and improving sts. in Anacostia, 1906.									$729.72
6020	Terminal project, nw., se., and sw. sections.	Elimination of grade crossings									8,174.80
6021	Sewage pumping station	Sewage-disposal system				1,515.80					2,179.88
6026	Third st. sw., between Virginia ave. and E st.	Elimination of grade crossings									841.80
6031	Sewage pumping station	Sewage-disposal system									66.25
6043	Ninth st. sw., between Virginia ave. and D st.	Elimination of grade crossings									946.51
6047	T st. bridge and approaches	.....do									139.75
6048	Second st. sw., between C and Virginia ave.	.....do									451.95
6050	Second st. sw., between F and H, through reservation 17.	.....do									1,982.67
6060	New Jersey ave. se., between E and First sts.	.....do									625.89
6061	New police court	Police court building	8.00						150.00		25.48
6064	Fourteenth st. sw., between D and Water sts.	Elimination of grade crossings									2,853.48
1502	Florida ave., between Ninth and Eleventh sts.	Northwest section									64.06
1503	Eleventh st., Barry place and Sherman ave.	.....do									60.63
1504	Florida ave. nw., between Ninth and Eleventh sts.	.....do	82.00		12.00						402.82
1505	E st. nw., between Seventeenth and Eighteenth sts.	.....do	3.00	43.00							43.47
1506	E st. nw. between Seventeenth and Eighteenth sts.	.....do							554.00		121.87
1508	E st. nw. between Seventeenth and Eighteenth sts.	.....do					933.41				1,098.85
1702	Seventh st. ne., Maryland ave. to H st...	Northeast section									111.87
1703	Seventh st. ne., Maryland ave. to H st...	.....do							310.00		61.31
3625	K st. bridge across Rock Creek	K st. bridge across Rock Creek, District of Columbia.									255.00
3725	Sustaining wall along Canal rd	Sustaining wall, Canal rd									855.83
4451	Thirteenth st., between Clifton and Euclid sts.	Pave Thirteenth st., between Clifton and Euclid sts.	30.00	126.00	25.00				25.00		169.41
4626	Good Hope rd	Grading and improving Good Hope rd									1,287.69
6072	Second st. ne., between H and I sts	Elimination of grade crossings									361.50

6076	Sixth st. parking next to building line of D st.	New police court building, District of Columbia.	.....	14.00	.....	.....	.....	.....	3.00	.....	26.76
6066	Both sides Florida ave. ne., between Second and Third sts.	Elimination of grade crossings	.....	.....	.....	.....	.....	.....	.....	.....	672.74
6067	K st. ne. from First to Second sts	do	.....	.....	.....	.....	.....	.....	.....	.....	1,593.11
6068	K st. ne., intersection of Delaware ave	do	.....	.....	.....	.....	.....	.....	.....	.....	464.57
6069	L st. ne., between First and Second sts	do	.....	.....	.....	.....	.....	.....	.....	.....	582.07
6073	Ivy st. ne., square 693	do	.....	.....	.....	.....	.....	.....	.....	.....	786.57
6081	C st. sw., between Seventh and Ninth sts.	do	.....	.....	.....	.....	.....	.....	.....	.....	10.72
6082	Parcel 87-153, Brightwood	Health department, District of Columbia, 1907.	.....	.....	.....	.....	.....	.....	.....	.....	17.33
6086	517 Spruce st. nw	do	6.00	.....	.....	.....	.....	.....	16.00	.....	9.45
			11,468.00	183.00	37.00	1,526.38	1,109.41	103.00	1,058.00	360.00	50,475.61

TABLE N.— *Miscellaneous trust fund deposits, District of Columbia, operating account.*

Job No.	Location.	For whom done.	Grading.	Cement sidewalk.	Curb reset.	Curb set.		Asphalt block paved.	Cobble.	Cost.
						6 by 20	8 by 8.			
			Cu. yds.	*Sq. yds.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Sq. yds.*	*Sq. yds*	
6005	Emergency repairs First st. tunnel	Pennsylvania R. R. Co	.....	.....	.....	.....	.....	.....	.....	$610.11
6009	K st. ne. between Sixth and Seventh	Philadelphia, Baltimore & Washington R. R. Co.	.....	.....	.....	.....	.....	.....	.....	2,047.74
6011	Virginia ave. se. between Second and Fifth, Seventh and Eighth sts.	do	.....	.....	.....	.....	.....	.....	.....	790.38
6013	Vicinity of filtration plant	Sand Filtration Corporation of America.	.....	.....	.....	.....	.....	.....	.....	838.49
6022	Entrance to hospital grounds	Garfield Memorial Hospital	172.00	.....	.....	.....	.....	.....	65.00	180.50
6025	Alley, square 79	James B. Lambie	.....	.....	.....	.....	.....	13.00	.....	22.89
6029	Between filtration plant and University Station.	L. E. Smoot	.....	.....	.....	.....	.....	.....	.....	200.00
6039	Fourteenth st. extended	Capitol Traction Co	.....	.....	.....	.....	.....	.....	.....	5,790.52
6040	V st. ne. east of North Capitol st	J. W. Paul	.....	.....	.....	.....	.....	.....	.....	98.31
6049	814 Sixth st ne	J B. Gallenne	.....	1.00	.....	.....	.....	.....	.....	1.71
6051	1201 Sixteenth st. nw	E. W. Davis	.....	.....	20.00	.....	.....	.....	.....	10.76
6052	1013 Sixteenth st. nw	Alonzo O. Bliss	.....	.....	16.00	.....	.....	.....	.....	11.35
6055	North side of H st. ne., between First and Second.	Washington Terminal Co	.....	2,019.89	.....	.....	.....	.....	.....	2,822.66
6056	East side Eleventh st. between C and Pennsylvania ave.	W. E. Spier & Co	.....	.....	.....	.....	12.00	.....	.....	12.60
6065	Fifteenth st. nw. between F and G	Thompson, Sterritt & Co	.....	.....	6.00	65.00	.....	.....	.....	81.86
6079	Stoneleigh Court	Fox, Fitch, & Brown	.....	.....	.....	.....	.....	.....	.....	5.25
			172.00	2,020.89	42.00	65.00	12.00	13.00	65.00	13,225.13

TABLE O.—*Number of square yards and cost charged for repairs to cuts made by plumbers and others in streets, avenues, and alleys during the fiscal year ended June 30, 1907.*

Item No. 1 shows the number of cuts repaired for various plumbers.

Item No. 2 shows the number of cuts repaired and the cost thereof on "whole cost" work, to which 5 per cent is added for tools, clerk hire, etc., for the maintenance of the miscellaneous trust-fund deposits, District of Columbia (operating account), which fund is used to pay all accounts for labor, material, tools, etc., used in this class of work, and also includes the work done for gas, electric-light, and telephone companies, which work is charged at other than the flat rates charged to plumbers.

Item No. 3 shows the number of cuts repaired on account of sewer department and the cost of the same.

Item No. 4 shows the number of cuts repaired on account of the water department and the cost of the same.

Item No. 5 shows the number of cuts repaired and the work done on account of other appropriations of the District of Columbia and the cost of the same; also the cost of work charged against retents and appropriations of the General Government.

	Number.	Square yards.	Cost (amount charged).
Item No. 1.—Plumbers' cuts:			
Sheet asphalt	307	761.40	$2,284.20
Granite block	180	329.00	444.15
Asphalt block	251	841.66	1,136.24
Vitrified block or brick	168	271.20	542.40
Cobble and rubble	173	206.00	92.70
Macadam	400	183.75	248.05
Granolithic walks	567	637.04	1,433.33
Brick sidewalks	1,494	13,951.90	[a] 5,580.76
	3,540	17,181.95	11,761.83
Item No. 2.—Railroad, electric-light company, telephone company, and other corporations and individual depositors, account of whole cost work	2,387	46,721.06	69,331.63
Item No. 3.—Various appropriations of the sewer department	438	7,021.20	14,847.06
Item No. 4.—Various appropriations of the water department	1,580	26,241.20	35,848.43
Item No. 5.—Various appropriations other than the above, including repairs to streets, roads, street lighting, electrical department, improvements and repairs, assessment and permit work, elimination of grade crossings, contingent and miscellaneous expenses, District of of Columbia, parking commission, etc	799	11,689.30	16,235.60
Total	8,744	108,854.71	148,024.55

[a] Includes amount charged for paving brick.

TABLE P.—*Grading streets, alleys, and roads, 1907.*

Job No.	Location.	Grading.	Cost.
		Yards.	
1900	Rock Creek Park		$2,449.12
1901	Intersection of Fessenden street and Connecticut avenue	2,200	254.18
1903	Varnum street, between Seventh and Eighth streets, Petworth	487	36.50
1904	Allison street, between Brightwood avenue and Kansas avenue	780	91.00
1905	Fourteenth street ne., between C and E streets	1,640	230.25
1907	B street ne., from Fourteenth to Eighteenth streets	824	122.50
1908	Fifteenth street ne., between East Capitol and E streets	806	201.75
1910	Thirteenth street ne., between Rhode Island avenue and Franklin street	720	101.25
1912	Rittenhouse street and Western avenue, from Chevy Chase Circle to Broad Branch road	768	158.62
1914	D street se., between Sixteenth and Seventeenth street, and Seventeenth street between D and E	1,094	140.50
1918	Fifteenth street se., between East Capitol street and Pennsylvania avenue	1,128	740.87
1919	Minor street through square 1065	5,840	767.74
1920	E street nw., to rear of 1816 F street	285	46.50
1921	U street ne., between Rhode Island avenue and Lincoln avenue	1,452	208.50
1923	Both sides of Sixteenth street extended from grade point north of Oak street southward	6,148	1,942.62
1924	Irving street between Warder street and Brightwood avenue	2,244	358.00
1926	Seventeenth street se., between East Capitol and D streets	4,320	767.00
1928	Fifteenth street se., between Pennsylvania avenue and K street	1,678	185.50
	Total	32,514	8,802.40

REPORT OF THE SURVEYOR.

WASHINGTON D. C., *August 27, 1907.*

SIR: I have the honor to submit the following report of the operations of this office for the fiscal year ending June 30, 1907:

The total number of orders for the year for surveys and plats was about 3,000, this being slightly less than the number for the previous year.

The number of lots surveyed has been 1,804, against 1,759 for last year, and the number of walls located has been 1,454, against 1,652 for last year.

The subdividing and recording of large parcels of land into lots, blocks, streets, etc., has continued through the year. Twenty-two of these have been made, against 21 for last year and 8 for the year before. As all new subdivisions require the running of old boundary lines, the location of new streets, and the placing of monuments at block corners, it can be seen that this class of work has been exceptionally heavy.

These large subdivisions have been recorded under the names of—

Kingston.
Weaver & Voorhees, Trustees, Addition to Cleveland Park.
Butterfield's Addition to Congress Heights.
Randle Highlands (second subdivision).
Randle Highlands (third subdivision).
Sherwood.
Connecticut Avenue Terrace.
West Woodridge.
Butterfield's second Addition to Congress Heights.
South Kenilworth.
Glover's Purchase.
Tyndall's Subdivision of Granby.
Edwards & Knopp's Addition to Sherwood.
North Randle Highlands.
North West Highlands.
Cathedral Highlands.
Cameron & Brock's Addition to Argyle Park.
Whittingham.
Richmond Park.
Floral Hill.
Randle Highlands (fourth subdivision).

The following table is submitted as a matter of comparison with a similar one published in last year's report, showing the relative increase or decrease in certain classes of work:

	Fiscal year 1904–5.	Fiscal year 1905–6.	Fiscal year 1906–7.
FOR PRIVATE PARTIES.			
Individual lots or parts of lots surveyed in city and county.	1,891	1,759	1,847
Certificates of survey issued covering one or more lots	1,226	1,097	1,005
Duplicates of above recorded in survey certificate books	1,226	1,097	1,005
Separate surveys made to verify walls	843	836	663
Individual buildings inspected as to location of new walls	1,734	1,652	1,454
Walls moved before final certification	707	940	830
Large tracts in county surveyed, subdivided, and recorded	8	21	22
Outline surveys in county of unsubdivided tracts	58	58	64
Subdivision blanks prepared	396	408	358
Duplicate subdivision blanks prepared for assessor	396	408	358
Subdivisions recorded	386	393	308
Total of individual new lots in subdivisions	3,121	4,609	4,166
Plats of one or more recorded lots to accompany applications for building permits	1,026	940	929
Estimates of cost issued in triplicate	3,337	3,287	2,982
Plats made up on order of private parties	3,110	2,932	2,736
Total of fees paid to collector of taxes by private parties	$15,370.40	$17,706.40	$15,102.75
FOR THE DISTRICT OF COLUMBIA.			
Surveys for the District of Columbia	50	46	63
Plats recorded	43	35	28
Indorsements on survey plats	1,226	1,097	1,005
Indorsements on wall survey plats	843	836	663
Postal-card reports concerning walls to owners	843	836	663
Reports concerning walls to building inspector	843	899	855
MISCELLANEOUS.			
Total of surveys for the District of Columbia and private parties	2,185	2,058	1,817
Total of plats, public and private, including plats drawn in books	4,873	4,561	4,204

Although the foregoing table shows a slight decrease for the year in certain classes of work, owing to a slack in building operations, there has been on the whole about the same amount as during either of the two previous years, the recording of new block or square numbers entailing considerable additional office work.

Under the act for designating parcels of land four volumes of plats were finished and placed on record on October 31, 1906. These plats show the outlines of every individual holding in the county, about 90,000 lots or parcels, and give a renumbering of all blocks and squares of the various subdivisions.

In renumbering the squares provision is made for new numbers in future subdivisions in accordance with the permanent system of highways. Thus all squares west of Rock Creek have been or will be numbered from 1170 to 2500; those east of Rock Creek to North Capitol street extended will run from 2500 to 3500; east of North Capitol street to the Eastern Branch the numbers run from 3500 to 5000, while all numbers above 5000 will lie south of the Eastern Branch. Each acreage tract has been designated as a parcel, with a number showing its situation.

The preparation of these plats required the work of six or seven draftsmen during eighteen months of time; and while more funds could have been used with great profit, it is considered that the plats have furnished a satisfactory base for this new system. All private notes in the office are now numbered or referenced to conform to this new system.

An index book of these plats has been prepared by Mr. W. A. Williams, by which the new square numbers and old block numbers with subdivision names can be readily compared or used in the way of cross-reference.

Tax bills, based on these new plats, have been rendered during the past year, so that the system can no longer be considered a novelty or an experiment.

The system is of such simple nature that it has been received with favor by the public, and in the future any reference by the cumbersome system of names will be done away with and the troublesome duplication of numbers will now be avoided.

During the year certain work in the western part of the city has emphasized the need of more extensive and thorough records of the squares in old Georgetown and its various additions.

The office has a collection of field notes and other data purchased from the estate of the late Henry W. Brewer and bearing on this part of the city, but the notes are rather disjointed and incomplete, although they are the best that the office has. Of original data of Georgetown, there is next to nothing. The various copies of old squares are not certified and are known to be inaccurate, some squares measuring 8 or 10 feet more or less than the records tend to show.

I suggest that certified data be obtained from various sources and that an appropriation of $1,000 or $2,000 be asked to start an entire new book or original or certified copies of old Georgetown data. This should be done through one of the title companies or through some examiner familiar with the Georgetown section.

In connection with this it may be well to state that what is known as the "Western Addition of Georgetown" is being taxed as agricultural land, while it is apparently subdivided, although the status of the streets has never been well determined and they are either unused or fenced in.

I think an examination of certain records will show that both Prospect avenue and N street are public to the Canal and Conduit roads, and on account of the great future need for the opening and use of these streets their status should be determined now.

This office has been called upon during the year for a great amount of work in connection with the opening of alleys, minor streets, and condemnations under special acts of Congress, much of this being in connection with the street extension department work.

The office work has suffered during the year, as it has for the past three years, for lack of proper room, and it is considerable satisfaction to know that a change in this respect will occur during the next year, when more space will be allotted to these valuable records, so that a better system of work can prevail.

In order to provide for certain small needs, I again recommend that the amount of $4,500 for hire of drivers and extra help be increased to $6,000, and that it be worded so as to allow for the purchase of supplies and care or hire of teams.

I wish to acknowledge the efficiency of the work done by the employees of this office and the way in which they responded during the busy weeks, which enabled us to keep throughout the year practically up to date with current work.

Very respectfully,

WM. P. RICHARDS,
Surveyor District of Columbia.

Capt. EDWARD M. MARKHAM,
Corps of Engineers, U. S. Army,
Assistant to the Engineer Commissioner District of Columbia.

REPORT OF THE SUPERINTENDENT OF PARKING.

WASHINGTON, D. C., *September 1, 1907.*

SIR: I have the honor to submit herewith my twenty-second annual report, covering the operations of this office during the fiscal year ended June 30, 1907.

During the year 2,574 young trees were planted on the streets, avenues, and roads of the District, a decrease of 658 from the number set out the previous year. The varieties used consisted of the following:

Elms (*Ulmus americana*)	188	Pyramidal oak (*Quercus rober*)	60
Gingko (*Salisburia adiantifolia*)	86	Red oak (*Quercus rubrum*)	13
Linden (*Tilia americana*)	64	Silver maple (*Acer dasycarpum*)	334
Norway maple (*Acer platanoides*)	610	Sugar maple (*Acer saccharinum*)	358
Pin oak (*Quercus palustris*)	246	Sycamore (*Platanus orientalis*)	616

This tree planting is carried on in two seasons, namely, spring and fall, and on the vicissitudes of each largely depends the amount of work accomplished. With our limited force it will be seen that the extension of tree lines and filling of vacant spaces may receive a serious setback whenever the elements interfere with steady progress of outdoor work.

Three thousand Norway maple seedlings were transplanted from seed beds to rows in the Brightwood avenue and E street nurseries. Both are amply stocked with the other useful varieties, so that it is not deemed necessary to make increases in the supply further than above stated.

The trees in the northeast, southeast, and southwest sections of the city were again gone over by the trimming force. The growths in these neighborhoods consist largely of locusts, Carolina poplars, and silver maples, varieties well known for their requirement of frequent trimming. The two first-named are being replaced by better varieties as rapidly as practicable. Silver maples are more prone to injury by brisk winds than many other varieties, and the brittle nature of their branches necessitates the expenditure of much time and money to keep them in good condition. Except to fill gaps and extend existing rows silver maples are not being planted, but, on the contrary, are being rapidly removed from the streets to make way for more suitable kinds, and when they are eliminated the cost of trimming will be considerably reduced. With the advance of years and their consequent increased age, the importance of annually trimming all of the larger trees is becoming more and more evident. If they are to be maintained for the beautification of Washington's thoroughfares, it is manifest that their condition should be of the best, and this can not be while dead, decayed, and broken limbs are allowed to run riot. An inspection of those streets recently covered by the trimmers clearly demonstrates the desirable results attained. Under this head an important item is the "miscellaneous trimming," the necessity for which is brought to our attention by numerous requests, memoranda, etc. This requires for its proper performance the constant services of a foreman, one or more two-horse wagons, and several laborers and, moreover, gives rise to a great deal of clerical work. In connection herewith an effort is always made to accommodate the applicants if by so doing the affected trees will not be injured. The greater portion of this work is due to the dense shading of houses and yards and the presence of low limbs which interfere with traffic.

Few fiscal years pass which are not marked by the receipt of a large number of "police reports," calling attention to various casualities to the trees. During the year 727 such reports were received and attention to them involved removing and trimming trees, repairing boxes, stakes, straps, wires, etc. The majority were incident to the storm of May 27, 1907, when trees and their supports were destroyed, principally in the southwest and southeast sections.

Trees removed during the year reached a total of 1,111, and included 34 separate varieties. Of these, 884 were curb growths, the same forming part of the permanent tree lines; 172 were removed from public parkings; 55 from alleys and unimproved roadways, and 42 from the sidewalks. The last mentioned were originally part of very old lines which, at the behest of property holders, have been allowed to remain from year to year until their dangerous condition or other good reasons finally demanded their removal. The causes of removal were varied, as usual, and contributed to the above total in the following proportion:

Dead, decayed, and dangerous	495
Street, building, and other improvements	195
Storms	83
Miscellaneous causes[a]	338

[a] These removals were due to the interference with curb trees and the demand for relief from conditions arising from excessive shade.

Of the number of dead trees removed, 64 were killed by escaping gas, so far as the facilities of this office enabled us to determine. The loss of trees by gas leakage is due in large measure to the extreme age of many of the gas mains. These have, in some cases, remained undisturbed for many years and it is fair to assume that the action of the elements has, meanwhile, had a deteriorating influence on them. In the southeast section (notably on M street east of South Capitol) entire blocks of trees have been killed and the ground so impregnated with the poisonous element as to preclude the possibility of maintaining young trees until all of the affected earth immediately adjacent has been removed. However well directed, the attempts to purify the soil are not always successful and repetitions of the work are frequently necessary to secure a healthy growing area for the roots.

Prior to the fall of 1906 the attention of this office was called to the poor condition of the trees on S street NW. between Nineteenth and Twentieth. On investigation, it was found that they were suffering from gas leakage, and this being general throughout the block the gas company was required to put in a new main, after which the trees were removed and replaced by young ones. These are now in good condition and fully justify the measures taken. This office hopes, during the current year, to formulate some plan for a general replacement of leaky mains where found to be injuring trees, and thereby materially lessen the casualties. This would involve examination of mains and the searching of records, and with a small office force a favorable opportunity must be awaited.

The deaths of 71 trees were the direct result of injury by horses. In many such cases it was found that they were completely "girdled," and even the hardiest can not survive such extensive injury. This evil has, however, been considerably checked by the detail of a foreman to the duties of inspector (with police authority) at such times as he could be spared from his regular work. In this connection attention is invited to the fact that since January 10, 1907, fifty-four arrests were made of parties found injuring trees or allowing their horses to do so. The sum total of fines collected on this account was $438. It is highly probable that fines during the current fiscal year will amount to at least $1,000, a sum sufficient to reimburse this office for the salary paid the inspector, as provided by act of Congress. If some arrangement were made whereby these penalties could be placed to the credit of the parking commission appropriation, the benefit accruing would be considerable, and I trust the honorable Commissioners will include a recommendation to that effect in their estimates to Congress. This special enforcement of the regulations for the protection of trees has also been effective in an educational way, in that the general public has come to more fully realize the existence of these regulations. The various individuals and companies whose work necessitates excavation near trees have evinced a desire to avoid injuring them and in numerous instances have made requests of this office for an inspection of their work, with a view to such avoidance. By prompt compliance it is estimated that during the past year several score of good trees were saved for future usefulness.

During the year there were purchased 800 rods of wire netting for use in protecting the trees. Delivery on this order was completed February 2, since which date the central portions of the city have been covered, the men putting on 2,208 new wires, readjusting 2,565 old ones, and removing 6,740. These latter had become so rusty and torn that they were useless as a protection and at best unsightly. From the above figures it can be seen that this office is doing as little wiring as possible and, in fact, is making every effort to abolish the practice. The cost of wire netting and its attendant labor (about $2,000 per annum) has been considerably reduced, and I am fully confident that the constant observation of the trees by the inspector answers the same purposes of protection in a more satisfactory and economical manner. As the example of prosecution is set more clearly before the people I have no doubt that this item of expense will in time be entirely eliminated.

During the first month of the fiscal year various insect pests of the caterpillar variety appeared in large numbers on the trees and their wire and box guards. They were attacked with the "hot-blast torch" before they had scattered to the branches and were effectually destroyed, the result being that we were not again annoyed with them or their progeny during the year. This method of destroying the pests in the egg is far preferable and more effective than the clipping of the branches after the worms have spread and multiplied, and, too, no damage is done to the tree. The old method (the clipping of the affected branches) was always more or less injurious and it was frequently necessary to remove branches whose presence was important to preserve the symmetry of individual trees.

Trees on streets at close of fiscal year 1906		91,243
Trees planted fiscal year 1907	2,574	
Trees removed fiscal year 1907	1,111	
Net increase of trees		1,463
Trees on streets at close of fiscal year 1907		92,706

Reducing the above 92,706 by 2 per cent (the estimated proportion of parking trees), leaves a balance of 90,852 curb growths. These are spaced an average of 30 feet apart, making a total of 518 miles of trees. Reducing this number one-half to allow for two rows per street, leaves 259 miles, the length of tree-planted streets, or about 59 per cent of the mileage of streets and roadways in this District. Furthermore, it is estimated that about 75 miles of these are completely arched by branches and foliage.

Trees removed fiscal year 1907.

Arbor vitæ	1	Negundo	69
Ash	1	Pin oaks	5
Black walnut	1	Red oaks	3
Catalpa	7	Swamp white oaks	1
Cherry	1	White oaks	5
Elms	88	Koelreuteria virginica	2
Gingko	5	Osage orange	1
Holly	1	Peach	1
Horse chestnut	3	Pear	1
Linden	40	Aspen poplars	25
Locust	13	Athenian poplar	20
Norway maples	72	Carolina poplar	215
Red maples	3	Sassafras	2
Soft maples	328	Sweet gum	12
Sugar maples	55	Sycamore	90
Sycamore maples	5	Tulip	29
Mulberry	4	Willow	2

Expenditures.

SALARIES.

Superintendent of parking	per annum	$1,300.00
Assistant superintendent of parking	do	1,000.00
Foreman	do	1,050.00
Four foremen, at $900 each	do	3,600.00
Clerk	do	750.00
Total	do	7,700.00

STREETS, DISTRICT OF COLUMBIA, 1907, PARKING COMMISSION.

[General expenses.]

Appropriation for fiscal year 1907	$27,500.00
Repayments:	
Assessment and permit work	303.47
Sidewalks and curbs	7.50
Miscellaneous trust fund deposits	629.40
Repairs to streets	147.61
Public schools, repairs, etc	40.00
Improvements and repairs to county roads	5.87
Paving Kalorama road	11.75
Elimination of grade crossings	844.35
Construction of Anacosta Bridge	37.50
Total	29,527.45

Sums expended during the year for purchase or maintenance of horses, harness, and wagons, together with amounts expended for cart and wagon hire:

Allotment for engineer stables	$250.00		
Minus repayment	100.00		
Total		$150.00	
Two horses (purchased)		494.00	
Forage		1,288.68	
Miscellaneous items (harness, repairs to harness, wagon, stable supplies, etc.)		480.43	
Cart and wagon hire (included also under labor)			$2,413.11
1,439½ days' service of carts, at $2.25 per day		3,238.88	
310½ days' service of wagons, at $3.50 per day		1,086.72	
		4,325.60	
Labor:			
Planting trees on streets		9,419.15	
Trimming trees on streets		3,880.77	
Removing trees from streets		2,409.00	
Wiring trees and incidentals		598.67	
Care of parkings, mowing weeds, etc		594.75	
Cultivation of street trees		1,978.37	
Attention to various casualties, broken limbs, boxes, etc		651.00	
Destruction of insect pests		202.30	
Gathering tree seed		40.45	
Removal of decayed boxes		18.94	
Paving around young trees		91.95	
Work at office yard (including skilled laborer and blacksmith)		1,434.00	
			21,319.35
Materials:			
Lumber (for tree boxes), stakes		2,437.96	
Miscellaneous lumber, cedar posts		162.08	
Wire netting		1,032.00	
Leather straps		877.45	
Telegraph wire		13.75	
Nails		93.54	
Soil		241.60	
Grass seed		10.20	
Tools		258.45	
Coal		23.39	
Rope		82.25	
Paints, oils, glass, etc		18.08	
Stationery, furniture, office supplies		57.68	
Car tickets		15.00	
Ice		5.00	
Two stoves		14.00	
Sundries		222.77	
			5,565.20
Miscellaneous charges:			
Repairs to nursery buildings (E street se.)		28.75	
Repairs to nursery buildings		14.06	
Repairs to nursery buildings, plumbing (E street se.)		6.30	
Repairs to cuts in improved streets		7.35	
Repairs to typewriter		1.50	
Repairs to "hot-blast torches"		13.00	
Caning chair seats		1.80	
Use of bicycles by foremen		35.53	
Blacksmith work (performed at property yard shop)		44.85	
Laundry		.45	
			153.59
Unexpended balance of appropriation			76.20
			29,527.45
Salaries			7,700.00
Grand total			37,227.45

Expenditures from various appropriations.

[Other than parking commission.]

Miscellaneous trust fund deposits:		
Trimming, removing, digging, and planting trees—		
Direct charges	$304.39	
Repayments	629.40	
		$933.79
Postage fund: Official correspondence, direct charges		16.00
Assessment and permit work:		
Removing trees—		
Direct charges	10.00	
Repayments	303.47	
		313.47
Emergency fund: Removing débris caused by storm of May 27, 1907, direct charges		300.00
Construction of Anacostia Bridge: Removing trees, repayment		37.50
Sidewalks and curbs: Removing trees, repayment		7.50
Repairs to streets:		
Removing trees—		
Direct charges	15.75	
Repayment	147.61	
		163.36
Public schools, repairs, buildings, etc.: Planting trees in school yards, repayment		40.00
Improvements and repairs to county roads: Removing trees, repayment		5.87
Paving Kalorama road: Removing trees, repayment		11.75
Elimination of grade crossings:		
Removing and planting trees, sodding—		
Repayments	844.35	
Direct charges	390.85	
		1,235.20
Total		3,064.44

NOTE.—The repayments indicated above are embodied in the table of expenditures on account of the appropriation for parking commission.

There were no "overseers, inspectors, or other employees temporarily required to perform clerical or other services in connection with sewer, street, or road work, or any general or special work authorized by appropriations," employed under this office during the fiscal year 1907.

Respectfully submitted.

T. LANHAM,
Superintendent of Parking.

Capt. EDWARD M. MARKHAM,
Corps of Engineers, U. S. Army,
Assistant to Engineer Commissioner, District of Columbia.

REPORT OF THE ASSISTANT ENGINEER IN CHARGE OF STREET EXTENSIONS.

WASHINGTON, *September 21, 1907.*

SIR: I have the honor to submit the annual report of the operations of this office during the fiscal year ended June 30, 1907. Reports to Congress were made on only three street-extension measures during this year, a large number having been reported on at the previous session, upon which no action was taken at that time.

Before the adjournment of Congress 25 street-extension measures were passed, and as each of these bills specified a time limit in which to prepare and file the case in court this office was taxed to its fullest extent in order to prepare all the cases for filing in the specified time. In several cases it was necessary to make surveys in order to properly prepare these cases, the surveyor of the District undertaking this branch of the work, and also made the maps and wrote the descriptions in several other cases, making 10 in all prepared by him, for which this office wishes to express its appreciation.

Several condemnation cases were pending June 30, 1906, and these, together with all others instituted during the past fiscal year, are shown in the inclosed table.

The following maps for dedicating land for streets or other purposes were prepared during the year: Forty-sixth street northwest, from Alton place to Murdock Mill road; Barnaby road, from Livingston road to the District line; Lane place northeast, east of Whittingham place.

This office has charge of the preparation of maps and descriptions of all land to be condemned for opening alleys and for additions to school sites, and during the year several cases for opening minor streets were prepared.

When the jury has returned its verdict in condemnation cases the descriptions of the land taken, as well as for the land assessed for benefits, together with the names of the owners, are prepared in this office. Five copies are furnished for the jury's signature and filing in the courts, necessitating great care in their preparation.

The following properties were purchased during the year, negotiations having been instituted in this office:

For school sites at Deanwood, $3.471.34; Anacostia, $10,000; Brightwood Park, $8,400.72; for addition to the McCormick School, $7,931.75; for playgrounds, southwest section (north half of square south of square 643), $14,000; northeast section, blocks 32, 33, and 34, Long Meadows, $31,000; for combination truck and engine house, lot 63, Lanier Heights, $6.000.

In the matter of the widening of Bladensburg road, it is necessary to obtain dedications of not less than two-thirds of the land for such widening. Maps have been prepared for this purpose and a large number of dedications filed in the surveyor's office, but a proportion sufficient to meet the terms of the act has not been acquired, so that this case can not be finally acted upon.

In case of Nineteenth street extended, which was pending June 30, 1906, a final award has been rendered allowing damages for the land taken much in excess of the benefits assessed. This verdict will very likely not be confirmed and additional legislation will be necessary in order to carry out the provisions of the original bill.

Very respectfully,

E. M. TALCOTT,
Assistant Engineer in Charge of Street Extensions.

Capt. EDWARD M. MARKHAM,
Corps of Engineers, U. S. Army,
Assistant to Engineer Commissioner, District of Columbia.

Condemnation proceedings held during fiscal year 1907.

STREET EXTENSIONS.

Subject.	Court docket No.	Act No.	Act approved.	Case filed.	Verdict rendered.	Award.		Action taken.
						Damages.	Benefits.	
Rhode Island avenue, Lincoln road to Fourth street east.	682	17	Feb. 19,1906	Apr. 19,1906	Oct. 8,1906	$22,741.16	$22,741.16	Confirmed Dec. 13, 1906.
Kalorama road, Eighteenth to Champlain streets	686	352	June 29,1906	July 24,1906	May 16,1907	5,253.20	5,634.58	Confirmed June 17, 1907.
Joining Waterside drive and Park road	723	26	Jan. 22,1907	Mar. 29,1907	June 7,1907			
Mills avenue ne., Rhode Island avenue to Twenty-fourth street.	732	219	Mar. 2,1907	Apr. 30,1907				
School street in Mount Pleasant, south to Irving street	725	70	Feb. 8,1907	Apr. 8,1907				
Euclid street, Champlain street to Columbia road	687	222	June 11,1906	July 28,1906	June 18,1907			
Massachusetts avenue from Wisconsin avenue to Nebraska avenue.	703	302	June 27,1906	Nov. 27,1906	Apr. 30,1907			Dismissed June 17, 1907.
Piney Branch parkway from Sixteenth street to Rock Creek Park.	735	135	Feb. 27,1907	May 7,1907				
Columbia road, widening east of Sixteenth street	711	6	Jan. 9,1907	Feb. 8,1907				Nothing done.
Second street nw., from Elm to Bryant streets and W street nw., from Flagler place to Second street and eastward to Twenty-second street.	712	7	.....do.....	.....do.....				
Meridian place nw., eastwardly to Fourteenth street	713	8	.....do.....	.....do.....				
Fourth street ne. through the "Rose" tract	714	30	Jan. 22,1907	Feb. 20,1907				
Kenyon street nw., Seventeenth to Mount Pleasant streets.	715	28	.....do.....	Feb. 21,1907				
Twenty-third street nw. to Kalorama road	717	10	Jan. 9,1907	Mar. 7,1907				
Sixth, Seventh, Franklin, and Irving streets in Brookland.	718	5	.....do.....	Jan. 9,1907				
Macomb street, Cleveland Park to Kalorama road	720	23	Jan. 21,1907	Mar. 19,1907				
Harvard street nw., westward to Sixteenth street	721	29	Jan. 22,1907	Mar. 21,1907				
Fessenden street nw., Wisconsin avenue to River road	722	144	.....do.....	Mar. 22,1907				
Geneseo place and Summit place in Lanier Heights	726	9	Jan. 9,1907	Apr. 9,1907				
Monroe street, Anacostia, Harrison street to Baltimore and Ohio R. R. right of way.	727	302	June 27,1906	Apr. 11,1907				
Forty-sixth and Warren streets nw	728	131	Feb. 26,1907	Apr. 24,1907				
T street nw., Thirty-fifth street to proposed Rock Creek drive.	729	136	Feb. 27,1907	Apr. 27,1907				
Forty-fifth street nw. to Nebraska avenue	730	144	.....do.....	.....do.....				
Monroe street, Brookland, Seventh street to Michigan avenue.	731	183	Mar. 2,1907	Apr. 30,1907				
Albemarle street, Wisconsin avenue to Murdock Mill road.	733	190	.....do.....	May 7,1907				
New Hampshire avenue, Petworth to District line	737	143	Feb. 27,1907	May 27,1907				
Park place, Hobart place to Rock Creek Church road	739	152	Mar. 1,1907	May 31,1907				
Seventeenth street nw., Kenyon to Irving streets	715	25	Jan. 22,1907	Feb. 21,1907				

Condemnation proceedings held during fiscal year 1907—Continued.

MINOR STREETS.

Subject.	Court docket No.	Act No.	Act approved.	Case filed.	Verdict rendered.	Award.		Action taken.
						Damages.	Benefits.	
Square 801	704			Dec. 7, 1906	May 16, 1907			Discontinued.
Square 870	705			Nov. 22, 1906	Apr. 4, 1907			Set aside.
Square 1020	701			....do....	May 7, 1906			Vacated.
Square 878	695			Oct. 1, 1906	Mar. 5, 1907			Do.
Square 650	693			Sept. 17, 1906	Dec. 17, 1906	$7,179.24	$7,643.47	Confirmed Jan. 28, 1907.
Square 512	692			Sept. 6, 1906	Feb. 8, 1908	28,851.20	29,625.60	Confirmed Mar. 27, 1907.

ALLEYS.

Block 20, Columbia Heights, and block 19, Todd & Brown's subdivision.	681			Apr. 10, 1906	July 10, 1906	$1,295.46	$1,458.48	Confirmed Sept. 20, 1906.
Square 750, city	683			June 5, 1906	Nov. 9, 1906	166.85	397.74	Confirmed Dec. 19, 1906.
Block 23, Columbia Heights	684			....do....	Jan. 17, 1907	3,820.00	4,153.79	Confirmed Feb. 21, 1907.
Block 18, Meridian Hill, and block 45, University Park	685			June 12, 1906	Dec. 20, 1906	1,744.12	1,972.32	Confirmed Feb. 11, 1907.
Block 32 Columbia Heights	688			July 28, 1906	May 24, 1907	3,570.75	3,845.64	Pending appeal.
Washington Heights and Widows Mite	696			Oct. 26, 1906	Feb. 6, 1907	12,678.52	13,038.49	Confirmed Mar. 13, 1907.
Square 870, city	702			Nov. 22, 1906	Apr. 4, 1907			Set aside.
Block 10, Todd & Brown's subdivision	706			Dec. 12, 1906	Feb. 26, 1907	2,775.02	3,040.59	Confirmed Apr. 8, 1907.
Block 33, Columbia Heights	707			...do....				First case discontinued.
	738			May 31, 1907				
Block 40, North Grounds, Columbian College subdivision, and block 19, Meridian Hill.	708			Dec. 21, 1906	Feb. 8, 1907	3,348.02	3,540.78	Confirmed Mar. 26, 1907.
Square 1046, city	724			Apr. 5, 1907	June 17, 1907	87.00	276.59	Confirmed July 29, 1907.
Square 61, city	676			Jan. 11, 1906	May 9, 1906	952.64	1,215.20	Confirmed Oct. 12, 1906.
Block 12, Meridian Hill, and block 8, Washington Heights	668			July 12, 1905	July 27, 1906	9,622.45	10,112.70	Confirmed Sept. 20, 1906.

MISCELLANEOUS.

Square 800, land for addition to school site	742			June 24, 1907				Case not completed.
Part of lot 7, Bellevue, for addition to almshouse site	736			May 7, 1907				Do.
Park at Sixteenth and Fifteenth streets	698			Nov. 10, 1906	Apr. 11, 1907			Case dismissed June 17, 1907.
Park at Sixteenth street and Piney Branch road	699			....do....				Case dismissed June 15, 1907.

REPORT OF THE INSPECTOR OF ASPHALT AND CEMENTS.

WASHINGTON, *September 11, 1907.*

SIR: I have the honor to submit the following report of the operations of this office during the fiscal year ending June 30, 1907, which is summarized in the following tables:

Number of samples tested.

Hydraulic cements:	
Natural, brands 2	120
Portland, brands 9	10,476
Asphalts:	
Bermudez, refined	8
Casa	1
Cuban, crude	1
Fairfield	1
Maricaibo, refined	1
Trinidad	1
Trinidad, refined	3
Asphaltic cements	522
Asphaltic surface mixtures	248
Oil: Residuum	30
Brick	2
Bronze	6
Coal tar	2
Lampblack	1
Magnesium cement	1
Miscellaneous experiments	19
Paving pitch	2
Pipe covering	2
Sand	250
Slate	2
Thermometers	14
Twine	3
Water	16
Total	11,732

HYDRAULIC CEMENTS.

Number of barrels inspected and the average results of tests on same.

NATURAL CEMENT.

[The 120 samples represent 900 barrels, of which none were rejected.]

Brand.	Barrels.	Samples.	Residue retained on 100 mesh sieve.	Initial set.	Water used.		Temperature of air and water.	Tensile strength per square inch.		
					Neat cement.	2 parts standard quartz.		Neat cement.		7 days, 2 parts standard quartz.
								1 day.	7 days.	
	No.	*No.*	*Per ct.*	*Min.*	*Per ct.*	*Per ct.*	*° F.*			
Cumberland and Potomac	900	90	7.8	27	31.5	12.4	80	212	262	263
Do.[a]	.....	15	4.2	25	33.5	13.4	68	169	249	229
Rosendale[a]	.....	15	5.1	50	21.3	12.0	71	299	431	243

[a] Sample submitted with bid for furnishing cement.

Number of barrels inspected and the average results of tests on same—Continued.

PORTLAND CEMENT.

[The 10,476 samples represent 105,928 barrels, of which 6,104 were rejected.]

Brand.	Barrels.	Samples.	Residue retained on 100-mesh sieve.	Initial set.	Water used.		Temperature of air and water.	Tensile strength per square inch.		
					Neat cement.	3 parts standard quartz.		Neat cement.		
								1 day.	7 days.	7 days, 3 parts standard quartz.
	No.	*No.*	*Per ct.*	*h. m.*	*Per ct.*	*Per ct.*	*° F.*			
Alpha	970	97	6.7	2 00	18.5	9.0	74	585	786	362
Atlas	40,776	4,077	3.8	2 00	18.3	9.0	74	569	742	344
Do.[a]	.....	15	6.1	3 30	17.3	9.0	70	777	831	369
Dragon	7,300	730	4.1	3 00	19.9	8.9	81	551	717	332
Do.[a]	.....	15	5.6	4 00	18.0	9.0	69	738	855	427
Giant	16,330	1,633	4.7	3 00	19.4	8.9	75	447	757	348
Lehigh	25,072	2,351	6.7	2 00	18.0	9.0	71	395	741	304
Do.[a]	.....	15	6.1	6 00	18.0	9.0	70	461	843	351
Nazareth	5,850	585	6.1	3 00	19.1	8.9	78	323	752	295
Phoenix	200	20	3.4	2 00	20.0	8.0	86	537	878	396
Saylor	170	12	6.3	46	18.0	.....	81	323	.....	.....
Vulcanite	9,260	926	8.3	2 00	17.8	9.0	73	473	924	386

[a] Sample submitted with bid for furnishing cement

Barrels of cement tested during the year.

District of Columbia	45,535
Anacostia Bridge	14,399
Brennan Construction Company	12,758
Blome & Co	8,120
New York Avenue Bridge	7,957
Piney Branch Bridge	5,490
Cranford Paving Company	5,040
T Street Bridge	3,540
Connecticut Avenue Bridge	2,999
Colburn Brothers	820
Tuberculosis Hospital	170
Total	106.828

PETROLEUM RESIDUUM.

The petroleum residuum used during the year by the different asphalt paving companies as a flux to soften the asphalt in the preparation of asphalt cements was manufactured by the Standard Oil Company, at Bayonne, N. J., and was of good quality, there being no rejections. Of the 30 samples submitted for examination, 27 were for the Brennan Construction Company, 2 for the Cranford Paving Company, and 1 for the Washington Asphalt Block and Tile Company.

ASPHALTS.

During the year there were examined for the Brennan Construction Company six lots of refined Bermudez asphalt, representing 1,900 tons, which showed an average of 93.79 per cent bitumen soluble in carbon disulphide; one lot of crude Cuban asphalt representing 300 tons, which showed 66.55 per cent bitumen soluble in carbon disulphide; one sample of Fairfield refined asphalt cement which showed 80.15 per cent bitumen soluble in carbon disulphide. The Cranford Paving Company submitted for analyses one lot of refined Maricaibo asphalt representing 200 tons, which showed 94.32 per cent bitumen soluble in carbon disulphide, and two lots of refined Bermudez asphalt, representing about 10 tons, which gave on analyses 93.38 per cent bitumen soluble in carbon disulphide. The Washington Asphalt Block and Tile Company submitted one lot of Trinidad asphalt, representing 1,170 tons, which showed on analysis 54.4 per cent bitumen soluble in carbon disulphide.

ASPHALT CEMENTS.

Tests made on the samples of asphalt cements showing penetrations of asphalt topping and binder used by the two paving companies during the past year.

	Asphalt binder cement.							Asphalt topping cement.						
		Penetration.							Penetration.					
		Highest.		Lowest.		Average.			Highest.		Lowest.		Average.	
	Number of samples.	Obtained in office.	Obtained at paving yard.	Obtained in office.	Obtained at paving yard.	Obtained in office.	Obtained at paving yard.	Number of samples.	Obtained in office.	Obtained at paving yard.	Obtained in office.	Obtained at paving yard.	Obtained in office.	Obtained at paving yard.
Brennan Construction Co.:														
Bermudez	19	83	83	68	70	76	77	233	65	61	48	51	56	57
Cuban	216	82	84	64	68	73	75							
Cranford Paving Co.:														
Bermudez								13	54	55	44	45	49	49
Maracaibo	9	70	73	58	64	65	69							

LOSS BY VOLATILIZATION.

	Asphalt binder cement.				Asphalt topping cement.			
	Number of samples.	Highest.	Lowest.	Average.	Number of samples.	Highest.	Lowest.	Average.
Brennan Construction Co.:								
Bermudez					15	4.0	1.7	2.2
Cuban	15	1.6	0.6	1.1				
Cranford Paving Co.:								
Bermudez					1	2.1	2.1	2.1
Maracaibo	1	1.3	1.3	1.3				

ASPHALT SURFACE MIXTURES.

During the year 248 samples were examined. The following tables show the maximum, minimum, and average per cent bitumen contained, and the average mesh composition of sand used in the surface mixture:

	Bermudez.
Number of samples:	
Brennan Construction Company	237
Cranford Paving Company	11
Highest per cent bitumen:	
Brennan Construction Company	12.3
Cranford Paving Company	12.5
Lowest per cent bitumen:	
Brennan Construction Company	8.4
Cranford Paving Company	10.6
Average per cent bitumen:	
Brennan Construction Company	10.6
Cranford Paving Company	11.3

MESH COMPOSITION OF SAND.

	Brennan Construction Co.	Cranford Paving Co.
Sand per cent retained on sieves having—		
20 meshes per linear inch	3.3	1.3
40 meshes per linear inch	21.3	27.9
60 meshes per linear inch	28.2	25.6
80 meshes per linear inch	16.8	15.8
100 meshes per linear inch	10.9	12.9
Passing 100 meshes per linear inch	18.1	15.1

SAND USED IN SURFACE MIXTURE.

During the year 163 scows of sand, representing 24,450 cubic yards, were inspected, of which 6,300 cubic yards were rejected.

MISCELLANEOUS AND SPECIAL EXAMINATIONS.

During the year quite a number of miscellaneous substances were submitted for examination and tests by different departments, the results of such tests being reported direct to the department or office from which they were submitted.

SPECIAL EXPERIMENTS.

A number of tests have been made on the determination of void and specific gravity of different mixtures of sands. The results thus far obtained are not sufficient to report at present.

There have also been devised two new pieces of apparatus, one for the determination of the waterproof quality of concrete, and the other for the determination of the bitumen in an asphalt mixture. By the use of the latter it is expected to reduce the time heretofore required (about forty-eight hours) to that of five hours, and with more accurate results. Both of these pieces of apparatus are as yet in the rough, experimental state, and sufficient results have not been obtained to warrant a description of the same in their present condition.

In my estimates for the coming year, I have requested that an appropriation of $1,000 be asked for the purchase of new apparatus for this laboratory; also that the salary of the clerk be increased from $750 to $900 per annum, for the reason as stated therein.

Very respectfully,

J. O. HARGROVE,
Inspector of Asphalt and Cements.

Capt. EDWARD M. MARKHAM,
Corps of Engineers, U. S. Army,
Assistant to Engineer Commissioner, District of Columbia.

REPORT OF SPECIAL COUNSEL ON GRADE DAMAGES.

WASHINGTON, D. C., *October 1, 1907.*

SIR: In the matter of the appraisement of the damages which have resulted to real estate in the District of Columbia in consequence of changes made in the grades of streets, avenues, and alleys in connection with the Union Station project, I have the honor to submit the following report for the fiscal year ending June 30, 1907:

There were 164 claims for damages heard and determined by the grade-damage commission during the year, involving 270 pieces of property. In 111 of these cases damages were awarded landowners aggregating $88,065, while in 53 of the cases the commission awarded no damages whatever to the claimants, upon the ground that the damages alleged to have resulted to the property of the claimants had been offset by the benefits and advantages shown to have accrued to the property by reason of the establishment of the Union Station and the improvements incidental thereto.

The Commissioners, or the claimants, expressed dissatisfaction with the appraisements of the commission in 61 of the cases tried during the year, necessitating the submission of the cases to a jury, as provided by section V of the act of Congress approved April 22, 1904, entitled "An act to provide for payment of damages on account of changes of grade due to constructon of the Union Station, District of Columbia."

The work of changing the grades of the following-named streets, avenues, and alleys *was completed during the* year, namely:

Second street northeast, Third street northeast, and K street northeast, around square numbered 750 and the alleys and minor street (Parker street) in said square.
Delaware avenue and Second street northeast, around square numbered 748.
Third street northeast, between L and M streets.
I street southeast, between Fifth street and Virginia avenue.
I street southeast, between Sixth and Seventh streets.
K street southeast, between Sixth and Seventh streets.
K street southeast, between Seventh street and Virginia avenue.
Sixth street southeast, between G and I streets.
Sixth street southeast, between Virginia avenue and K street.
Virginia avenue southeast, between Fifth and Sixth streets.
Virginia avenue southeast, between Sixth and Seventh streets.
Virginia avenue southeast, between Seventh and Eighth streets.
Virginia avenue southeast, between Second and Third streets.
H street southeast, between First and Second streets.
Third street northeast, between M street and Florida avenue.
N street northeast, between Third street and Florida avenue.
North Capitol street, between E and G streets.
Dingman place, McCullough street, and the alleys in square numbered 628.
E street northwest, between North Capitol street and New Jersey avenue.
Delaware avenue northeast, between C and D streets.

Application was made to the supreme court of the District of Columbia, holding a district court, on August 6, 1906, in accordance with the provisions of the act of Congress approved June 29, 1906, entitled "An act to provide for payment of damages on account of changes in grade due to the elimination of grade crossings on the line of the Philadelphia, Baltimore and Washington Railroad Company," for the appointment of a commission to appraise said damages, and the court on the same day appointed Messrs. Charles A. Baker, George W. Moss, and George Spransy as such commission, because of their experience in appraising such damages under the act of Congress approved April 22, 1904.

The commission thereupon met and fixed a day for hearing testimony touching the damages which have resulted to property in the southeastern section of the city, from changes of the grade of streets, avenues, and alleys, due to the elimination of grade crossings, and gave thirty days' public notice thereof by advertisement, as required by said act of Congress approved June 29, 1906. The time given property owners for the filing of claims for damages has not yet expired.

During the year there were 97 petitions for the allowance of damages filed, making a total of about 700 petitions that have been presented to the commission for consideration.

The appraisements made by the commission during the year are as follows:

Lot.	Owner.	Award.
Property abutting on the south side of H street, between Second and Third streets NE., and on the east side of Second street, between G and H streets, in square 752.		
Sublots 15, 16, 17, and north 40 feet of lot 4.	James J. Farrell	$185.00
Lot numbered 5	Mary C. Slater	600.00
Lots 2, 13, 14, 20, 21, and 31	Annie M. Reavis	250.00
Lots 20 and 21	Diller B. Groff	200.00
Part lot 7	William H. Lacy	150.00
North part lot 7	Mary E. Moore	150.00
West 22 feet lot 8	do	2,000.00
Part of lot 8	Kate C. Newburg	400.00
Part of lot 8	B. Pickman Mann	500.00
Part of lot 8	The People's Real Estate Tontine	900.00
Lot 18, parts of 8 and 9	William E. Giddings, Eliza A. Spaulding, née Giddings, and Benjamin D. Giddings.	75.00
Lot 19 and parts 8 and 9	William E. Giddings, Eliza A. Giddings, and Benjamin D. Giddings.	750.00
Part of lot 9	Annie E. Giddings, Charles F. Giddings, Marion J. Giddings, Edward G. Giddings, Joseph D. Giddings, and Harry P. Giddings.	550.00
Part of lot 9	Edward M. Grinder	400.00
Part of lot 10	Thomas Collins	400.00
Part of lot 10	John T. Davis and Ellen Davis	400.00
Parts of lots 10 and 11	Ida I. Collins	375.00
Part of lot 11	John D. Rourke	775.00
Part of lot 11	Henry Werner	250.00
All of square 751	The Little Sisters of the Poor of Washington City.	3,000.00

Lot.	Owner.	Award.
Property abutting on the north side of Massachusetts avenue, between North Capitol street and New Jersey avenue, in square 625.		
Lot 1	W. Clarence Duvall and Sidney T. Thomas, trustees for Michael T. Burns.	Nothing.
Sublot 2	Mary C. O'Leary, Margaret Horn, Catherine V. Jackson, and Johanna M. O'Leary.	$1,700.00
Lot 3 and part lot 2	Silas S. Daish	800.00
Lot 4	M. Frank Ruppert	275.00
Lot 5	W. Clarence Duvall and Sidney T. Thomas, trustees for Michael T. Burns.	200.00
Lot 6	Avarilla Lambert	Nothing.
The east 20 feet of lot 7	Jeremiah Mackessy	2,500.00
Parts of lots 7 and 8	Margaret E. Kennedy, and John J. Sheehy, guardian ad litem of Julia E. Kennedy.	2,375.00
The west 12½ feet lot 8	Thomas McMahon	$375.00
Lot 9	Jeremiah O'Leary	600.00
Sublots 52 and 53	Maurice Collins	900.00
Sublot 11	Johanna Collins	375.00
Sublot 12	Katherine Murphy	200.00
The east 18 feet of sublot 13	Catherine Burke	150.00
Sublot 14 and west 7 feet of lot 13	John R. Hutchinson	150.00
Lot 43	Christian Heurich and Augustus B. Coppes, trustees.	150.00
Lots 49, 50, and 51	Mary M. Duvall	$400.00
Property abutting on the south side of Massachusetts avenue, between North Capitol street and New Jersey avenue, in square 623.		
Lot 36	John J. Costinett and Joseph R. Costinett, Katie Hurley, and Mary Riani.	Nothing.
Part of lots 36 and 37	Kate Quinlan and Mary Foley	Nothing.
Parts of lots 37 and 38	Ellen Sullivan	$1,100.00
Part of lot 39	Mabel Watkins and Paul De Forest Wollard	800.00
Lots 62 and 63	Mary Kirkpatrick	650.00
Lot 61	Katherine J. Falconer	650.00
Lot 60	Delia Murphy	600.00
Lot 35	Julia Fitzgerald, Nicholas A. Fitzgerald, John T. Fitzgerald, James P. Fitzgerald, and Mary J. Buckley and William R. Fitzgerald and Ellen V. Fitzgerald, minors, by Julia Fitzgerald.	1,000.00
Lot 34	Nora O'Leary, John R. Davis, and Nellie T. Davis, Mary G. Davis, Nora Davis, William Davis, and Margaret Davis, by Nora O'Leary, their guardian ad litem.	400.00
Lot 33	W. C. Butler	150.00
Sublot 32	Nellie Quill	Nothing.
Lots 30 and 31	Michael Halloran	Nothing.
Lot 29	James Barry	Nothing.
The east 6 feet lot 28	Mary Ready	Nothing.
Sublot 27	John Rudden	Nothing.
Lot 49	William A. Barnes, sr	Nothing.
Lots 47 and 48	L. Bartholomew Gleason	Nothing.
Lot 46	Thomas Regan and Katie Regan	Nothing.
Lot 44	Mary Costello, and Katie E. Rogers, Mary Ready, Theresa Costello and Margaret Costello, by Mary Costello.	Nothing.
Lot 43	John W. Meyer	Nothing.
Lot 20	Julia T. Dillon and Annie Dillon Welch	Nothing.
Property abutting on the north side of F street, between North Capitol street and New Jersey avenue, in square 626.		
Part of sublot 38	Mary F. Downey, committee of James F. Downey.	$3390.00
Lot 54	Katherine J. Falconer	500.00
Lot 55	....do	500.00
Lot 56	....do	500.00
Lot 57	Augusta L. Wilke	500.00
Lot 58	Katherine J. Falconer	800.00
Lot 59	....do	800.00
Sublot 5	Julia Fitzgerald, Nicholas A. Fitzgerald, John T. Fitzgerald, James P. Fitzgerald, and Mary J. Buckley, and William R. Fitzgerald, and Ellen V. Fitzgerald, by Julia Fitzgerald, guardian ad litem.	400.00
Part south halves lots 6 and 7	Mary T. Collins Curtin and William I. Collins, trustees, and in their own right.	500.00

Lot.	Owner.	Award.
Property abutting on the north side of F street, between North Capitol street and New Jersey avenue, in square 626—Continued.		
Sublot 7	Kate Quinlan, Mary Foley, Michael P. Foley, Margaret Foley, and Charles C. Kreamer, Joseph M. Kreamer, and Philip McCullough, minors, by Mary Foley, guardian.	$475.00
Parts of lots 7 and 8	Bridget C. Parker and Georgette Parker, infant, by Andrew Wilson, guardian.	105.00
West 16 feet of lot 8	Helen M. Dolan	650.00
The east half of lot 9	Dennis Quill, Thomas Quill, Daniel Quill, and John Quill.	150.00
The west half of lot 9	Johanna O'Keefe and Dennis Quill	150.00
The east half of lot 10	Katherine J. Falconer	450.00
The west half of lot 10	....do	450.00
Lot 11	George P. Van Wyck	500.00
Lot 12	Leon Tobriner	Nothing.
Lot 66	Katherine J. Falconer	Nothing.
Lots 67, 68, 69, 70, 71, 72, 73, 74, 75, and 76.	....do	Nothing.
Property abutting on the south side of F street, between North Capitol street and New Jersey avenue, in square 628.		
Part lot 23	Patrick F. Cusick	Nothing.
Part of lot 23 (46 F street)	....do	$750.00
Lots 68 and 69	Louise R. Britton, Catherine A. Reed, and Henry W. Reed.	1,200.00
Lot 70	Timothy O'Leary	1,900.00
Lots 71, 72, and 73	Patrick F. Cusick	6,675.00
Lot 74	John A. Sweeney	1,800.00
Lot 76	Michael T. Collins	1,800.00
Lot 77	Lee Hechinger	1,800.00
Lot 78	Mary Ida Thompson	1,850.00
Lot 79	Mary Millrick	1,925.00
Lot 80	Margaret Wroe	1,875.00
Lot 81	Martin Casby	1,825.00
Lot 82	Jennie W. Weinberg	1,850.00
Lot 83	Maud Thompson	1,850.00
Lot 84	Bridget Kane	1,850.00
Lots 85 and 86	John R. Hutchinson	3,775.00
Lot 87	Johanna O. Quinlan	1,925.00
Lot 88	Mary A. Foley	1,950.00
Lot 89	Nicholas McGowan	2,200.00
Lots numbered 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, and 21, in square 712.	Richard A. Johnson, Sarah E. McGuire, Oliver Perry Johnson, Charles H. Johnson, William K. Johnson and William A. Wimsatt, and R. Harrison Johnson, executors.	1,000.00
Lots numbered 8, 9, 10, 11, 12, 13, and 14, in square 748.	Mary F. Mitchell, John O'Donoghue, Elizabeth O'Donoghue, Catherine O'Donoghue, Louise O'Donoghue, Claude O'Donoghue, John H. O'Donoghue, Mark O'Donoghue, and Grace O'Donoghue.	4,000.00
Property abutting on Second street, between L and M streets, in square 748.		
Part lot 4, and lots 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, and 34.	Mary C. Blodgett	2,000.00
Lot 35	Josiah S. Kelly	175.00
Lots 36 and 37	Charles A. Capell and Marilla G. Capell	350.00
Lot 38	Walter E. Miller	225.00
Property abutting on the south side of K street northeast, in square 750.		
West 20 feet lot 77	Brainard H. Warner	570.00
Parts of sublots 77 and 78	Dennis F. Gleason	245.00
Parts of lots 78 and 79	Harry J. Mattern	240.00
Parts of sublots 79 and 80	W. A. Upperman, sr	230.00
The east 7.55 feet of sublot 80 and the west 7.88 feet of sublot 81.	Mary M. Haines	225.00
Parts of lots 81 and 82	Francis H. Connolly	220.00
The east 9.12 feet of sublot 82 and the west 5.88 feet of sublot 83.	James H. Forsyth	215.00
Parts of lots 83 and 84	Samuel H. Lenoir	205.00
Part of lot 84, and lots 85, 86 and 87	Eugene A. Byrnes	770.00
Sublot 97	James W. O'Brien	150.00
Lot 98	James H. Toomey	135.00
Lot 99	Annie Collins and James F. Collins	115.00
Lot 100	James H. Toomey	95.00

Lot.	Owner.	Award.
Property abutting on the south side of K street northeast, in square 750—Continued.		
Lot 101	Mary C. Caton	$60.00
Sublot 102	Catherine Gleason	35.00
Lots 93 and 94	Rebecca Parker Warner	Nothing.
Lots 95 and 96	Brainard H. Warner	Nothing.
Property abutting on Parker street, Second and Third streets, in square 750 (north side).		
Lot 128	Elizabeth B. Cook	170.00
Lots 127 and 126	Fannie L. Harward	295.00
Lot 125	Kate C. Henderson	200.00
Lots 124 and 123	Dennis E. Conroy	Nothing.
Lot 122	John Imirie	Nothing.
Lot 120	A. W. Latchford	Nothing.
Lots 119 and 118	Marie Anna F. Rueth	Nothing.
Lots 117 and 116	Anna C. Kluh	Nothing.
Lot 112	....do	Nothing.
Lot 109	Matthew C. McNamara	Nothing.
Lots 108 and 107	William Neuland	Nothing.
Lot 103	Margaret Sherwood	Nothing.
Property abutting on south side of Parker street, the east side of Second street, the west side of Third street, and the north side of I street northeast, in square 750.		
Parts of lots 33, 34, 35, and 36	Lauretta F. Boyd	Nothing.
Parts of lots 33, 34, 35, and 36	Leonidas Triplett, jr	Nothing.
Lots 40 and 41	George E. Hamilton	Nothing.
Lots 42 and 43	Martin F. Morris	Nothing.
Lots 50, 51, 52, 53, and 54	Redford Walker, William H. Walker, Mary Talty Fennell, Margaret L. Talty Tobin, Helen S. Talty, and Abbie R. Talty.	Nothing.
Parts of lots 13, 14, 15, and 16	Lauretta F. Boyd	Nothing.
Parts of lots 13, 14, 15, and 16	Leonidas Triplett, jr	Nothing.
Lots 27 and 28	Redford Walker, William H. Walker, Mary Talty Fennell, Margaret L. Talty Tobin, Helen S. Talty, and Abbie R. Talty.	Nothing.
Lot 132	....do	Nothing.
Lot 133	John J. Hill	Nothing
Lot 134	Mary E. Owings	Nothing
Property abutting on the west side of Third street northeast in squares 752 and 748.		
Parts of lots 13 and 14	Arthur Armstrong	Nothing.
Part of lot 13, square 752	Theodore Livings	Nothing.
Part of lot 70, square 748	John J. Donovan	Nothing.
Part of lot 71, square 748	Patrick and Catherine Casy	Nothing.
Lot 75, square 748	Conrad Muller	Nothing.
Sublot 73, square 748	Michael Flynn	Nothing.
Sublot 74, square 748	Virginia Polglase and John Cook, trustees	Nothing.

There were nine appraisements, involving 13 properties, made by an "appeal jury" during the year, composed of Messrs. Fred W. Pilling, Rudolph Kauffmann, Thomas P. Morgan, James B. Lambie, William H. Hoeke, Norval L. Burchell, and John Mitchell, the appraisements being as follows:

Lot.	Owner.	Award.
Lot 24, square 749	Andrew M. T. Shields, Ellen Shields, and John Shields; Peter A. Shields and Ellen Shields, guardians ad litem for Dennis Shields and William I. Shields.	$78.25
Lot 25, square 749	....do	76.25
Lot 27, square 749	Michael Burke	71.60
Lot 28, square 749	John Connell	66.52
Sublot 1 and south 2 feet of lot 43, square 749.	Catherine Burns	75.75
North 18 feet of sublot 43, square 749	Joseph Zegowitz	No damages.
Lots 1 and 2, square 772	Mary Talty Fennell, Margaret L. Talty Tobin, Helen S. Talty, and Abbie R. Talty.	No damages.
Lot 19, square 772	Stephen Talty	4,640.65
Lots 11, 12, 13 and 14, square 773	Isadore Saks and Eugene S. Benjamin	1,919.79

The sum of $8,226.19 was saved to the District by the submission of the foregoing cases to a jury. It is only fair to the commission to state, however, that the amount of money thus saved was due in large measure to the fact that the commission was not authorized in making its appraisements to take into consideration the benefits inuring to the property of the claimants by reason of the elimination of grade crossings, while the jury was, the amendatory act of June 29, 1906, having been passed after the cases were considered by the commission, but before they were submitted to the jury.

On the 16th day of June, 1906, the commission awarded damages in the sum of $15,000, to William M. Clayton, as the owner of sublots 72 to 77, inclusive, and sublots 85 to 94, inclusive, in square 712. The Commissioners considered this award excessive and unreasonable, and dissatisfaction was promptly expressed therewith under Section V of the aforesaid act of April 22, 1904, but before the case was reached for trial by a jury Mr. Clayton offered to compromise, and on March 8, 1907, the sum of $6,000 was paid to him in full settlement and satisfaction of his claim.

In addition to representing the municipality before the grade-damage commission during the year, I had charge of the matter of the proposed extension of Nineteenth street, from Woodley road to Baltimore street, No. 653, District court docket, which has been referred to in the current report of the corporation counsel. The proceeding looking to the extension of this street was taken under the act of Congress approved March 3, 1905, entitled "An act for the extension of Nineteenth street from Woodley road to Baltimore street," which contemplates that the jury empaneled in the case shall assess the entire amount of the damages awarded for and in respect of the land to be condemned for the extension, plus the expenses of the condemnation proceeding, against adjacent property as benefits.

By the verdict of the jury in this case, which was filed on May 27, 1907, damages aggregating $24,151.91 were awarded for the land to be taken, and the sum of $15,346.45 was assessed against the property in the neighborhood of the proposed extension as benefits.

Objections have been filed to this verdict, and the court has been asked to set it aside, because the jury failed to assess the entire amount of the damages, as provided by the aforesaid act of Congress.

The failure of the jury to assess the entire amount of the damages awarded and the expenses of the condemnation proceeding was due to an instruction given it by the court, based upon the opinion of the Supreme Court of the United States in the recent case of Brandenburg *v.* District of Columbia, reported in 205 U. S. at page 135. As a result of the court's ruling it will be necessary, in order to bring about this extension and to effectuate the intention of Congress in respect of the assessment of benefits, to procure further legislation, which will meet the objection made to the present act. At the suggestion of Captain Morrow, the Engineer Commissioner, I am now preparing such a bill, and expect to have it ready for submission to the Commissioners in the near future.

I also assisted Mr. James Francis Smith, assistant corporation counsel, in the conduct of the proceeding in the matter of the reassessment of the benefits which accrued to adjacent property by reason of the extension of Eleventh street northwest, from Florida avenue to Lydecker avenue (No. 556, District court docket), which has been pending in the supreme court of the District of Columbia for several years.

The jury empaneled in this matter, by its verdict, which was returned to the court on June 6, 1906, assessed benefits against real estate in the vicinity of the extension aggregating $96,700. Numerous objections and exceptions to the verdict were filed by landowners, but, after hearing argument thereon, Mr. Justice Barnard, of the supreme court of the District, on May 6, 1907, passed an order finally ratifying and confirming the verdict in toto, notwithstanding the objections and exceptions filed thereto, which were overruled.

Several property owners appealed from the order of the court confirming the verdict, and the appeals are now pending in the court of appeals.

The opinion of Mr. Justice Barnard overruling the objections and exceptions filed by the property owners to the verdict of the jury will be found in Volume XXXV of The Washington Law Reporter on pages 320–326.

In conclusion, I desire to acknowledge my appreciation of the tireless energy, industry, and efficiency of Mr. Leonard P. Bradshaw and Mr. Gus. A. Schuldt, my assistants, in the discharge of their respective duties during the year.

I have the honor to be, very respectfully, yours,

A. LEFTWICH SINCLAIR,
Special Counsel, District of Columbia.

Capt. EDWARD M. MARKHAM,
Corps of Engineers, U. S. Army,
Assistant to the Engineer Commissioner, District of Columbia.

SUBSURFACE AND BUILDING DIVISIONS.

Capt. WILLIAM KELLY.

Corps of Engineers, United States Army, Assistant to the Engineer Commissioner in charge.

WATER DISTRIBUTION.....W. A. MCFARLAND, *Superintendent Water Department.*
WATER RATES.....G. W. WALLACE, *Water Registrar and Chief Clerk, Water Department.*
SEWER CONSTRUCTION AND MAINTENANCE.....D. E. MCCOMB, *Superintendent of Sewers.*
BUILDINGS, BUILDING INSPECTION, AND REPAIRS.....SNOWDEN ASHFORD, *Inspector of Buildings.*
PLUMBING PLANS AND INSPECTION.....H. B. DAVIS, *Inspector of Plumbing.*

REPORT OF ASSISTANT IN CHARGE.

OFFICE OF THE ENGINEER COMMISSIONER,
DISTRICT OF COLUMBIA,
Washington, September 29, 1907.

CAPTAIN: I have the honor to forward herewith the reports of the divisions of the engineer department under my charge for the year ending June 30, 1907, as submitted by the superintendent of the water department, the water registrar, the superintendent of sewers, the inspector of plumbing, and the inspector of buildings.

Very respectfully, your obedient servant,

WILLIAM KELLY,
Captain, Corps of Engineers, U. S. Army, Assistant to Engineer Commissioner.

Capt. JAY J. MORROW,
Corps of Engineers, U. S. Army,
Engineer Commissioner, District of Columbia.

REPORT OF THE SUPERINTENDENT OF THE WATER DEPARTMENT.

WASHINGTON, *August 15, 1907.*

SIR: I have the honor to submit the following report of work done by the water department, District of Columbia, during the year ending June 30, 1907:

The organization of the department into divisions and subdivisions, as indicated in last year's report, has been extended and perfected, resulting in increased economy and smoothness of operation, and proving generally satisfactory.

A brief summary of the duties assigned to each division, and of results accomplished, follows:

DIVISION A.—*Maintenance and extension of distribution system.*

[J. S. GARLAND, assistant engineer, in charge.]

SUBDIVISION A 2.—*Trunk-line surveys, etc.*

The work of this subdivision consists primarily in making surveys and preparing detailed plans for trunk-line extensions, though it is frequently called upon for engineering work of a miscellaneous character.

Surveys and plans were completed for a 20-inch main from Sixth and Trumbull streets to Wisconsin avenue and Woodley road; a 20-inch main from Brightwood avenue and Fairmont street to Grant Circle; a 12-inch main in Water street from Thirty-third street to the Aqueduct Bridge and across the bridge; a 12-inch main in Eighth street between Florida avenue and Barry place; a 12-inch main on E street southwest between Tenth and Thirteenth streets, and for a 20-inch main from Fessenden street and Connecticut avenue to Reno Reservoir.

A special survey and examination was made to determine the exact location of large mains adjacent to the Pennsylvania Avenue Bridge across Rock Creek, the records of the Aqueduct office proving inadequate.

Surveys and plans were made for driveways, walks, curbs, etc., about the District pumping station and the work of construction supervised, and in addition a large amount of miscellaneous survey and record work executed, as set forth in detailed reports in this office.

This subdivision is under the direct supervision of D. W. Holton, assistant engineer, assisted by 2 chainmen, 2 laborers, and employing 1 horse and wagon.

SUBDIVISION A 3.—*Care of property.*

The work of this subdivision consists in receiving, inspecting, recording, storing and issuing all material bought for use of all branches of the department; preparing quarterly returns of unexpendable property; preparing lists of unserviceable property for condemnation and sale, and, until April 10 last, directing transportation of property to and from place of storage.

The property office, located in the District pumping station, is open at all times, day and night. Mr. S. Q. Kline, storekeeper, has charge and has regularly under his orders 1 assistant storekeeper, 4 skilled laborers, 4 laborers, and 1 pipe inspector.

SUBDIVISION A 4.—*Inspection and repair of fire hydrants, street hydrants, wells, and fountains.*

During the past year this subdivision has cared for 2,336 fire hydrants, 273 street hydrants, 123 drinking fountains for animals, 65 shallow and 33 deep wells, and in addition has done a considerable amount of miscellaneous plumbing work.

A tabular summary of the more important items of work done follows:

Repairs made to fire hydrants	1,494
Inspections of fire hydrants	42,712
Lubricating fire hydrants	4,146
Painting fire hydrants	1,853
Repairs made to street hydrants	346
Old street hydrants removed	30
Repairs made to horse fountains	286
Cleaning of horse fountains	4,205
Erection of new horse fountains	17
Painting horse fountains	202
Repairs to pumps	194
Wells filled	2
Main connections, 2 to 12 inches in diameter, made under pressure by means of "Smith" tapping machine	34

The large number of repairs made to fire hydrants is in part due to the fact that many of the hydrants are old and nearly worn out, but chiefly to their mishandling by both authorized and unauthorized users; a determined effort is being made by the department to minimize this evil, but the results achieved so far are not particularly encouraging.

As will be noted, the number of repairs to fire hydrants is 64 per cent of the total number in service and to street hydrants 27 per cent greater than the total number in use.

All fire hydrants were inspected at intervals averaging about twenty days; much oftener in the downtown business district.

Charles Merillat, assistant foreman, is in charge of this subdivision, his force ordinarily consisting of 3 plumbers, 3 skilled laborers, 3 flushers, 8 laborers, 5 horses, and 4 wagons.

SUBDIVISION A 5.—*Care and recording of valves and care of reservoirs.*

This subdivision is charged with caring for, and making and maintaining complete records of, all valves of the distribution system, and with general supervision over the two reservoirs, Brightwood and Reno, forming a part of that system.

The number of valves now in use is about 5,500.

For the purpose of identifying and recording valves, a cast-iron number plate is placed on the casing just inside the manhole cover, each street intersection being indexed separately. The record is made on 8 by 10 inch cards, two to each street intersection (or to each square where alley mains are involved), a white card with plat of the location showing position of valves relatively to building lines, curbs, car tracks, etc., and a buff card with full data as to make, size, location, and history of valve as far as obtainable. This record has been nearly completed after about six years of continuous work and contains at present 5,417 cards.

Men are kept constantly in the field operating valves to determine their condition, repairing, cleaning, and obtaining data for the permanent record.

During the year 11,019 valves were operated to determine their condition, and cleaned; 476 valve-stem stuffing boxes packed; 44 valves fitted with new main stems; 186 glands tightened; 27 new key nuts fitted; 1,654 valve vaults cleaned; 408 number plates placed; 58 cast-iron indicator posts placed, to mark the location of valves on lines in the outlying districts; 148 caps placed over stems of valves to be kept closed (on boundary lines between services); 106 blow-offs flushed; 336 intersections located; 328 index cards checked, and 495 corrected. Record was kept of all valves operated by employees in other divisions of the department. Whenever a valve is operated by an employee of the department he is required to report by telephone or otherwise to the operator at the pumping station, who transmits the report to this subdivision, where proper record is made.

At the reservoirs, in addition to the regular maintenance, terra-cotta drains were laid to serve the watchmen's lodges; arrangements made for the inclosure of the grounds with a light iron fence, and iron ladders designed and ordered for use in tank and reservoir basins.

Sample valve-record cards are attached.

H. Beckett, leveler, is in charge of this subdivision.

Location: Ninth and F streets northwest. No 3-34.

Number	1.	2.	3.	4.	5.	6.	7.	8.
Size	1″		6″	6″	6″	6″	6	6.
Kind	2 way	2 way	3 stem	4 way single stem.	2 way	2 way	2 way	2 way.
Make			Eddy		Eddy	Eddy	Eddy	Smith.
Purpose	Cut-off ser. pipe.	Cut-off ser. pipe.	Divide	Divide	Cut-off F. H.	Side stop off 4″.	Side stop off 6″.	Cut-off F. H.
Normal position	Open	Open	Open	Open	Open	Open	Open	Open.
Kind of cover	B. B	B. B	R. M. H.	R. R. cover.	B. B	R. M. H.	R. M. H.	B. B.
Position of main stem.	Ver	Ver	Ver	Ver	Ver	Ver	Ver	Ver.
Depth of key nut below surface.	3.6 ft.	3.2 ft.	2.7 ft.	2.95 ft.	2.45 ft.	2.95 ft.	2.2 ft.	2.6 ft.
To close turn key to		Right	Left	Left	Left	Left	Left	Left.
Full turns of key to close.	½	9½	20¼	20¼	21	21	21	20.
Ratio of gear								
When placed			1896.	1895.	1895.	1895.	1895.	Jan. 18, 1906.
Property of		D. C.	D. C.	D. C.	D. C.	D. C.	D. C.	D. C.
Key nut	Corporation cock.	5 sided.	5 sided.	5 sided.	5 sided.	5 sided.	5 sided.	5 sided.

SUBDIVISION A 6.—*Laying mains, erecting fire hydrants, etc.*

All miscellaneous construction work except of buildings and machinery is done by this subdivision; for a statement of work accomplished reference is made to Tables 1, 2, 3, 4, 5, 6, and 7, appended hereto, where such work is described in detail.

The subdivision is under the supervision of S. H. Harding, foreman. The force employed varies with the volume of work, but is constituted normally about as follows: 2 assistant foremen, 20 calkers, 2 riggers, 1 bricklayer, 1 paver, and 110 laborers.

SUBDIVISION A 7.—*Repair of leaks.*

This subdivision is charged with the duty of cutting off and repairing, or causing to be repaired, all leaks in water mains and service pipes. Day and night service is maintained, and in addition to the regular force a "reserve" has been established for use only in cutting off bad leaks when the regular force is unavailable. The reserve force does no repairing, being required to return to station as soon as the leak to which they have been called is shut off.

During the year a total of 2,624 leaks were reported, or an average of about 7 per day. Of these 223 were false reports, 67 breaks in mains (all but one under 16″ diameter), 757 in lead joints, and 1,045 in service pipes.

The reserve wagon was called out only 71 times during the year, or about once in five days. This subdivision is in charge of Assistant Foreman John McGuire, whose force consists of 2 calkers, 12 laborers, 5 horses, and 3 wagons.

SUBDIVISION A 8.—*Preparation of projects and estimates.*

The work of this subdivision consists chiefly in the field work incident to the preparation of projects and estimates for water-main extensions, including drawings, bills of material, etc., the field work necessary to locate the work on the ground, measurements of work as executed, and submission of notes for completion of office records.

A reference to Table 2, giving number, lengths, and locations of mains laid during the year will indicate the scope of the work covered.

The subdivision has also executed other engineering work of a miscellaneous character.

A. R. Speare, rodman, in charge, assisted by 1 rodman, 3 laborers, and employing horse and wagon.

SUBDIVISION A 9.—*Miscellaneous drafting.*

This subdivision is charged with the preparation of drawings and tracings of all water-main maps; of certain mechanical apparatus and other appurtenances used either in the shops, office, pumping station, or in the field. With the making from records of corresponding departments of plats showing proposed water-main extensions and indicating adjacent property lines, existing water mains, sewers, etc. With the recording of mains, fire hydrants, and other new constructions on all maps of record; the preparation of bills of material for each new job of field work as ordered, and with the furnishing of verbal and written information on subjects relative to water department work.

A brief summary of the chief items of work done during the year follows:

Drawings and tracings made	576
Projects made	128
Mains recorded	99
Fire hydrants recorded	41
Horse fountains recorded	7
Public hydrants recorded	24
Bills material made	46
Communications written	225

Other than the foregoing the subdivision has compiled in part and has kept posted to date 50, 100, 300, and 400 foot scale maps, showing all water mains in the District of Columbia; has each month drawn maps showing trunk mains and total hydraulic heads in the mains at various points over the whole distribution system; has compiled in part and has kept posted to date, card indexes of wells, public hydrants, horse fountains, and of all department drawings.

Frederick W. Albert, draftsman, is in charge of the subdivision, assisted by 1 draftsman and 2 skilled laborers.

SUBDIVISION A 10.—*Telephone switchboard.*

A department telephone switchboard is maintained at the District pumping station connected by means of 4 trunk lines with the system of the Chesapeake and Potomac Telephone Company, by 1 line with fire-alarm headquarters, 1 with police headquarters, and by 15 lines with the various divisions and branches of the department, reservoirs, etc. Practically all telephone business is transacted through this subdivision, which keeps in touch with the various field operations and is particularly useful in the transmission of current orders. One chief operator and 3 operators are employed, the service being of course continuous. In addition to the regular telephone business, the work of the subdivision consists in general in receiving and recording reports of leaks and transmitting orders for repair to the leak gangs; receiving and recording all fire alarms and transmitting same to employees designated to respond to second and additional alarms; receiving and recording reports of "fire hydrants out of service," and reporting same to the fire department; receiving, recording, and transmitting orders for hauling; keeping records of repair of fire hydrants, street hydrants, pumps, fountains, and wells; records of reservoir levels; of locations of new jobs for information of foremen; of daily consumption of water, etc.

D. B. Miller, chief operator, is in charge of the subdivision, assisted by 3 operators.

DIVISION B.—*Installation of meters, tapping mains, repair of service pipes, etc.*

The chief work of this division is the installation of meters on service pipes to private residences, as provided for in the act approved June 27, 1906, as follows: "For the purchase, installation, and maintenance of water meters to be placed in such

private residences as may be directed by the Commissioners of the District of Columbia; said meters at all times to remain the property of the District of Columbia; to be repaid from revenues of the water department at the rate of twenty thousand dollars per annum, beginning with the fiscal year to end June thirtieth, nineteen hundred and eight, one hundred thousand dollars."

Owing to the fact that this act was approved on June 27, only three days before the beginning of the fiscal year, the beginning of this work was much delayed.

This division was organized as quickly as possible, contracts made for supplies, 4 tool wagons built, an electrically driven pipe-threading machine, and all necessary small tools purchased.

On October 24 the work of installing the meters was begun, and with few delays continued until the end of the fiscal year, up to which time 5,468 meters had been installed. The work was begun at the highest part of the District, the "fourth high service" in the vicinity of Tenleytown, and continued down through the third and second high-service areas, all existing residences being metered as the work progressed. The reason for beginning work on the higher areas was twofold: First, because the water delivered to those areas costs much more to furnish, and any reduction of waste would result in an immediate reduction of cost, and, second, because these areas, being wholly served by pumps, any considerable reduction in per capita can be readily observed. The use of these meters for determination of water rates was not begun until July 1.

Meters are set on the service pipes outside of the houses, in vaults formed of 15-inch terra cotta pipe, with a cast-iron cover arranged as shown on the accompanying sketch. Much delay and additional expense was caused by the scattered location of houses in the outlying districts, and by the difficulty in many cases of finding the service pipes.

But little opposition to the placing of meters has been encountered, and this opposition is rapidly decreasing with a better understanding of the conditions involved. An especial effort has been made to avoid defacement of lawns and surroundings, and these efforts have as a rule been appreciated by the parties interested.

Of the $100,000 allotted, $98,929.53 was expended during the year, this of course including organization and purchase of plant and tools. The actual cost per meter, including all work and material, was about $17.

W. F. Sullivan, overseer of meters in charge, assisted by 3 plumbers, 5 or 6 helpers, and 35 to 40 laborers.

DIVISION C.—*Inspection of machinery, pipe, specials, etc., at point of manufacture.*

During the year 2 inspectors have been employed, one at Buffalo, N. Y., and later at Milwaukee, Wis., on the inspection of a 30,000,000-gallon pumping engine building for this department by the Allis-Chalmers Company, and the other at Lynchburg, Va., on cast-iron water pipe and specials.

DIVISION D.—*Revenue and inspection branch.*

[Under the supervision of G. W. Wallace, water registrar.]

By order of the Commissioners, District of Columbia, dated January 9, 1907, the revenue and inspection branch and the distribution branch of the water department were consolidated and placed under the immediate supervision of the superintendent of the water department.

For details of work under this division I invite attention to the water registrar's report appended.

DIVISION E.—*Miscellaneous clerical.*

This division is charged with all work relating to records of contract material delivered, preparation of vouchers for contract and open-market purchases, transfer vouchers for work done by the department on deposit of cost, or for other departments on account; with transmission of all papers to their proper destinations; with keeping of all accounts relating to employment of labor, expenditure of material, job costs, etc., and with making of requisitions for material as called for by other divisions and the handling of all miscellaneous correspondence.

During the year 3,031 vouchers and 2,082 "files" were received and forwarded; 855 requisitions for material made; 238 transfer vouchers prepared; 20,118 communications mailed; 1,753 card records made; 1,228 work orders transmitted; 13,216 miscellaneous papers handled; 291 pay rolls prepared, and 14,914 material slips checked, entered, and filed. W. C. Small, clerk, in charge.

DIVISION F.—*Pitometer surveys for the detection of waste.*

[O. C. Smith, pitometer operator, in charge.]

This division was organized early in the fiscal year for the purpose of locating waste of water from any cause whatever—either improper use or underground leaks.

Surveys are made by means of the Cole Pitometer with photographic recorders, 5 instruments having been purchased for the purpose.

The work in general is handled by dividing the area under investigation into comparatively small districts, each of which can be supplied by a single main, placing a "permanent pitometer connection" on this main, and measuring the flow of water by means of the pitometer. By successively cutting off the several parts of the small district the amount of water flowing to these parts is measured, and by continuing the process waste and leaks are determined both as to location and amount. Permanent connections have been placed, covering practically all of the fourth, third, and second high-service areas and about one-fourth of the first high service.

A brief summary of results accomplished follows:

	Gallons per day
Blow-off found open	75,000
Breaks in mains	149,000
Breaks in service pipes, etc	457,000
Waste stopped	233,000
	914,000

Of this amount 794,000 gallons were from areas supplied by pumping. Radical improvements in the apparatus used were devised by Mr. O. C. Smith, the principal of these being the use of a water jacket around the U tube, by means of which a very considerable error due to expansion and contraction of liquid with changes of temperature was eliminated. Error due to the viscosity of the carbon tetrachloride solution used as a recording liquid has been minimized by the inversion of the U tube and the use of a recording fluid of a less specific gravity than water.

Very complete and detailed examinations of each district are made as the work progresses; the fact that as a general rule the leaks are found in service pipes is a source of delay, necessitating the cleaning, and in many instances the replacing, of cut-off boxes. Complete records of all operations are kept.

The cost of the division during the year was:

Labor	$4,717.63
Permanent connections	4,014.74
Instruments	1,625.90
Miscellaneous material	235.69
Total	10,593.96

Force employed at the end of the year consisted of 1 assistant pitometer operator, 4 skilled laborers, 1 laborer, and 2 horses and wagons.

DIVISION G.—*Tests and experiments.*

[H. D. Yates, draftsman, in charge.]

The work of this division consists in calibrating, testing, and measuring apparatus used by the department; in making calorimetric tests of coal delivered at the pumping station; in making accuracy tests of all water meters to be used in the District of Columbia; in making special tests of boilers and machinery as called for, and in keeping necessary records.

During the year the steam plant has been equipped with testing apparatus, including hot-water meters, thermometers, electric pyrometers, draft gauges, calorimeters, wattmeters, mercurial manometers, CO_2 recorder, etc., for the purpose of securing data essential to increase the efficiency of the plant.

Calorimetric tests were made of all the coal consumed at the District pumping station, the intent being to ascertain the quality of the coal and to secure data for comparative tests of fuels. The coal used, supposed to be Georges Creek Cumberland, was of a uniformly good quality; the average B. T. U's. per pound of dry coal and per pound of combustible during ten months of the past year being 14,166 and 15,513, respectively.

The tests for accuracy and durability of water meters, begun May 31, 1906, to secure information for the guidance of the department in the selection of meters for local

use, are still under way. The five-eighths-inch meters running at the end of the year have records of 960,000 cubic feet, and the three-fourths-inch sizes, 1,300,000 cubic feet.

The sizes and makes of all private and municipal water meters tested during the year are shown in the accompanying table. Meter-test records are filed under the card-index system.

The following special tests were made: Duty trials of the Barr, Nordberg, and Allis-Chalmers engines; test of boilers Nos. 1 and 2 for evaporation efficiency; engine test to determine the losses due to a leak in vacuum; tests of the Westinghouse generators Nos. 1 and 2 for steam consumption; tests to determine frictional loss in fire hydrants; tests for better management of furnaces. The Allis-Chalmers engine No. 6 gave a duty of 166.5 millions of foot-pounds per 1,000 pounds of dry steam, which is a better performance than was made during the official duty trial in June, 1905. The boiler trial showed an equivalent evaporation from and at 212° F. of 10.58 pounds per pound of dry coal, and 11.51 pounds per pound of combustible.

Miscellaneous tests include the following: Valves tested for leaks, three-fourths to 12 inch sizes, 810; corporation cocks, tests for leaks, three-fourths to 2 inch sizes, 4,113; curb cocks, tests for leaks, three-fourths and 1 inch sizes, 7,474; pressure gauges tested and corrected, 159. Also made calibrations of thermometers, pyrometers, draft gauges, calorimeters (fuel and steam), weighing scales, tanks for measuring volumes, etc.

A daily record has been kept in a book since December 1, 1906, that shows the pumpage, consumption, mean water pressures, force of draft entering and leaving economizers and at base of stack, steam at boilers, mean water temperatures, vacuum pressures, foot-pounds of work by engines and generators, coal burned, feed water supplied, station duties, per cent of CO_2 in flue gases, etc. The data for this record is obtained from the engine-room and boiler-room reports.

Reports of all special tests and monthly statements from the station log book have been submitted.

Attention is invited to the results obtained during a series of experiments for better management of furnaces, conducted during the second half of June, when the fuel saving amounted to 18.5 per cent over the first half of the month. While the furnaces were in a better condition during the course of the experiments, it is believed that the fuel saving is largely due to a more skillful management of the fires. A comparison with the coal consumption during April shows a saving of 13.4 per cent and during May, 11 per cent, the consumption being 831,854 and 873,900 pounds, respectively. The pounds of coal consumed per 1,000 gallons pumped are: April, 1.217; May, 1.181; June, 1.101.

Tests of water meters during fiscal year ending June 30, 1907.

Meter.	Sizes.										Total.
	¼ in.	⅝ in.	¾ in.	1 in.	1¼ in.	2 in.	3 in.	4 in.	5 in.	6 in.	
Columbia			10								10
Crown			3	7	2	6	7				25
Empire		69	8								77
Gem						23	8	3			34
Hersey		5,497	175		6	5					5,683
King		62	7								69
Lambert		77	42	19	9	6	1	1			155
Nash	2	25	210	133	47	40	7	6			470
Niagara			1								1
Pitts. disk		63	17	10	2	6	2				100
Standard		8	17	1	3	1	1				31
Thomson	2	6	48	50	18	10	2	1			137
Trident	1	24	11	3			2				41
Trident crst						4	3	2			9
Union		1	10	6		2		4		1	24
Worthington		44		6	5	4	1				60
Westinghouse			2								2
Vertical hot water							2				2
Total	5	5,876	561	235	92	107	36	17		1	6,930

DIVISION H.—*Pumping station and repair shops.*

[James T. Fink, chief steam engineer, in charge.]

This division has charge of all pumping, care of pumping station and machinery, and all miscellaneous repair work incident to the operations of the department.

Water pumped.

	Gallons.
First high-service system	6,755,086,150
Second and third high-service system	2,599,630,060
Total	9,354,716,210

The combining of the second and third high-service system is on account of the removal of the vertical triple expansion engine from the abandoned U street station to the present station, during which time part of the water delivered from the third high-service pump was used to supply the necessary amount required on the second high service.

Total coal used	tons..	4,662
Total cylinder oil used	gallons..	1,756
Total engine oil used	do....	1,755
Total grease used	pounds..	913
Total waste used	do....	3,254

The force necessary to operate the pumping engines, boilers, etc., and to do the cleaning required to keep the boilers in good condition for service, cleaning of pumps, handling of ashes, etc., is as follows:

	Steam engineers.	Assistant steam engineers.	Firemen.	Oilers.	Cleaners.	Laborers.
Sunday	3	3	3	4	3	.....
Monday	3	3	3	4	3	5
Tuesday	3	3	3	4	3	5
Wednesday	3	3	3	4	3	5
Thursday	3	3	3	4	3	5
Friday	3	3	3	4	3	5
Saturday	3	3	3	4	3	5

For the fourth high-service system the water is pumped from the reservoir at Fort Reno (supplied by the third high-service pumps) to an elevated tank. There are two pumps which are run by gas engines of 10 horsepower and 6 horsepower, respectively, and operated each day by the watchman in charge of the reservoir.

Fourth high service, water pumped	gallons..	25,246,236
Gas consumed during the year	cubic feet..	254,300

Oils, no record kept. Will not exceed 40 gallons.

Battery for spark coil, two renewal charges.

Under the heading of repair-shop work are included the following branches and the number of men ordinarily required in each:

	Machinists.	Blacksmiths.	Carpenters.	Steam fitters.	Painters.	Laborers.	Laborers in meter division.
Sunday	.....	.....	.....	.....	.....	.....	.....
Monday	5	1	2	1	2	6	3
Tuesday	5	1	2	1	2	6	3
Wednesday	5	1	2	1	2	6	3
Thursday	5	1	2	1	2	6	3
Friday	5	1	2	1	2	6	3
Saturday	5	1	2	1	2	6	3

The work accomplished during the year is as follows: Erected Barr vertical triple-expansion engine, and necessary repairs made to same during erection, including new main journals, piston rods, expansion joints, metallic packing, steam and exhaust pipe and fittings, valve stems and bushings, leveling plates, etc., and engine started for trial on October 16, 1906.

New appliances installed and put in service: CO_2 recorder for fuel gases, auxiliary feed water heater, draft gauge, electric pyrometer, hot-water meters in boiler-feed lines, meter-testing room fitted up with tanks and necessary piping, new iron gallery on No. 3 engine and on No. 2 engine, foundation, iron gutters around sole plates of Nos. 4, 5, and 6 pumps, concrete foundation for new 30,000,000-gallon pumping engine, new pipe-threading machine and Oliver wood trimmer, iron steps in basement of engine room, waste-cleaning machine and oil filter, receiving separator for Westinghouse engine, mercurial siphon gauges on exhaust pipes of 5 engines, 2 electric hoists, gas pipe for boiler room and laboratory, temporary blacksmith shop, meter in circulating line for condensers, and iron gratings and covers for sewer drains in roadways around the station.

All necessary running repairs and renewals for the station have been made; also all repair parts for fire plugs throughout the city, including 125 operating screws, 81 casings, faced and drilled, 105 8-inch flanged specials, and 39 8 by 6 inch flanged specials for connecting fire plugs; made 31 indicator posts of 4-inch pipe, 50 new dirt rammers, and fitted new handles in 80 rammers; drilled and tapped 79 Buffalo box tops for numbers, bored out 10 12-inch sleeves, and turned tail end of 112 12-inch specials; drilled and tapped 85 pipe bonnets, altered 139 1-inch corporation cocks for use with pitometer, chased threads on 262 curb cocks, repaired 205 water meters, made 105 new valve stems for stop valves, fitted up 300 caps and nipples for divide valves, fitted up and put in place horsepower cylinder jacket No. 4 engine; made pitometer U tubes and jacket clamps, metal pattern for casing, ring, and cover; made jigs and tools for making four-way valves, lawn roller for use at station, changed plungers in No. 3 pump, cut in section 5 fire plugs, repaired ratchets and stocks; made pipe jointers and clamps, overflow pipes for fountains, coiled springs for waste valves, pump valves, and street hydrants; repaired 6 3-inch valves, 24 4-inch, 44 6-inch, 2 8-inch, 5 10-inch, 3 12-inch, 7 4-way, and 3 3-way 6-inch valves. Since January of this year the assembling of meters, cutting of nipples and washers for meter connections, etc., has been included under repair shop work, and the following work completed: Assembled with fittings, ready for setting, 4,396 meters; pipe nipples cut for meters, 17,107. All fittings have been boiled and dipped in paraffin and washers cut for union connections.

Temporary blacksmith shop was erected and blacksmith was transferred from U Street station to District pumping station, November 28, 1906. The following new tools were made during the year: 21 5-sided keys, 5 square nut keys, 5 wheel keys, 16 extension pieces for keys, 2 new sectional keys, 29 curb keys, 37 small wheel keys, 535 chisels, 50 wedge breakers, 10 yarning irons, 97 stakes, 25 pipe bands, 20 blacksmith's cold chisels (used in cutting pipe), 46 casing hooks, 12 keys for meter box covers, 132 fountain bolts and plates and 49 calking sets, 11 spanner wrenches. Repair work as follows: Welded collars on 28 main-valve stems for fire plugs, sharpened 2,320 chisels, 5,633 picks, and welded 496 new ends on picks; put on 999 horseshoes, dressed tools for machine shop, made small forgings for various repair parts around the station, cut iron for arches in valve vaults and bracing pipe, repairing keys, wrenches, drills, etc.

During the year the carpenters have fitted up the laboratory with cases, put molding around office rooms, built case for CO_2 recorder, tables for meter testing, boxes for Bristol recording gauges, cabinet for meter room, 2 map holders, bunks in leakmen's room, blacksmith shop, frames for organization charts, box closet for Brightwood lodge, template for No. 7 pump foundation, book and map case, steps and platforms over suction mains in engine room, coat closet for water department office, panels, gate, partition, and tables for water registrar; coat closet for drafting room, case for assessment cards, window jack for painters' use, rack for pitometer tubes and charts, four watchmen's boxes, four pitometer operating boxes, 16 tables of various kinds, necessary patterns for new and repair work; made straight edges, bell rods, ditch stations, centers for valve vaults, ladders, bridges, packing boxes for patterns, etc.; filed saws and adjusted levels for use on ditch work, repaired boats for reservoirs and miscellaneous repair work around the station; repairing locks, belts, etc.

During the year the painters have finished the 5 pumping engines and piping in engine room, an extra force of men being employed on this work; also painted fence around Brightwood reservoir, tank, woodwork, and inside walls of Reno lodge, 4 tool wagons, pipe covering, cases and shelf in laboratory, filled and varnished chair and picture molding for office rooms, boxes for recording gauges, cabinet, tables, etc., in meter room, iron steps to basement, sash and frames in blacksmith shop, 4 watchmen's boxes, closet for Brightwood lodge, railing around engine-room balcony, door and frame in west hall, ceiling of auxiliary space, 2 boats for Brightwood reservoir, varnished outside doors of station, varnished cabinet, desk, and pigeonholes for storekeeper's office, finished oak tables and cases, painted coat closets, horse fountains,

indicator posts, fire-plug casings, tables, mixing colors for use in painting fire plugs, fountains, etc.

Under the heading "Care of station, lights, etc.," are included the electrician and helper, janitor, and laborers, the following table showing the number of men ordinarily employed each day:

	Electrician.	Helper.	Janitor.	Laborers.	Window cleaners.
Sunday				2	1
Monday	1	1	1	9	1

The electrician and helper have taken care of the generators, switch boards, motors, wires for lights, telephones, call bells, etc.; operation of conveyor for coal and ashes, economizer scrapers, crane, etc.; erected tablet boards for engines Nos. 2, 3, and 4; made connections for pyrometer; wired and put in-place combination gas and electric brackets for Reno tower; put up conduit and changed wires to new telephone switch board, conduit and wires to motor on pipe-cutting machine; recharged batteries for telephones, call bells, engine stops, and gas engines; put conduit and wires on No. 4 engine, and finished wiring for electric lights on Nos. 2 and 3 engines; made desk stands for library and for leak men's room at U street station; wires and lights in CO_2 recorder; conduit and wires for two electric hoists; put wires in molding in office room for lights, fans, etc., and repaired electric fans.

The janitor and his force have been engaged in cleaning throughout the building, and have taken care of the lawns and roadway around the station.

The distribution system as a whole is in excellent condition—far better, it is safe to say, than at any previous time in its history. This is due in very large part to the hearty cooperation of the employees of the department, especially the heads of divisions and subdivision named in the body of my report. I desire here to express my sincere appreciation of their good work.

Very respectfully, your obedient servant,

W. A. McFARLAND,
Superintendent Water Department.

Capt. JAY J. MORROW,
Corps of Engineers, U. S. Army,
Engineer Commissioner, D. C.
(Through Capt. William Kelly.)

TABLE I.—*Summary of the distribution system.*

	In service June 30, 1907.	Added during fiscal year 1907.	Abandoned during fiscal year 1907.	Total in service June 30, 1907.
75-inch diameter, linear feet	600			600
48-inch diameter, do	44,297			44,297
42-inch diameter, do	23			23
36-inch diameter, do	56,749	2,697		59,446
30-inch diameter, do	45,288	3,650		48,938
24-inch diameter, do	21,644	4		21,648
20-inch diameter, do	47,689			47,689
16-inch diameter, do	2,532	48		2,580
12-inch diameter, do	239,361	12,605	803	251,163
10-inch diameter, do	9,416	6	155	9,267
Total trunk lines	467,599	19,010	958	485,651
8-inch diameter, linear feet	122,020	59,915	6	181,929
6-inch diameter, do	1,488,874	4,385	10,485	1,482,774
4-inch diameter, do	138,769	3,567	3,434	138,902
3-inch diameter, do	72,361	1,521	1,885	71,997
2½-inch diameter, do	242			242
2-inch diameter, do	5,515	580	100	5,995
1½-inch diameter, do	3,870			3,870
1¼-inch diameter, do	2,021			2,021
Grand total	2,301,271	88,978	16,868	2,373,381
Stop valves	5,245	459	182	5,522
Fire hydrants	2,258	92	14	2,336
Public hydrants	299	4	30	273
Public fountains	106	19	2	123
Mains lowered, linear feet				4,057

TABLE II.—*Statement showing cost of water mains laid during fiscal year ending June 30, 1907.*

	Size.	Length.	Labor.	Material.	Total.
	In.	*Feet.*			
O street, between Twenty-sixth and Twenty-seventh streets, and Twenty-sixth street, between O and P streets nw	2	580.1	$122.98	$112.36	$235.34
	4	4.9			
Ward court, square 70	3	104.8	47.45	58.64	106.09
Alley, square 183	3	158.2	53.50	59.82	113.32
Alley, square 777	3	34.6	5.43	7.60	13.03
Alley, square 889	3	296.0	103.93	88.96	192.89
Alley, square 981	3	156.9	83.67	162.97	246.64
Alley, square 44	3	56.7	18.00	75.81	93.81
Dumbarton avenue, between Twenty-sixth and Twenty-seventh streets nw	4	55.0	31.38	35.42	66.80
Alley, square 54	4	275.2	96.12	211.84	307.96
Alley, square 248	4	120.8	45.13	129.79	174.92
Alley, square 1058	4	333.4	110.94	333.04	443.98
Alley, square 276	4	197.9	91.63	53.74	145.37
Alley, square 280	4	50.6	15.44	27.78	43.22
Alley, square 1060	4	221.2	86.44	109.29	195.73
Alley, square 491	4	160.0	90.50	107.80	198.30
Quincy place, east from Eckington place ne	4	81.4	33.12	41.39	74.51
Alley, square 1?0	4	94.2	39.13	158.83	197.96
Alley, square 587	4	274.0	80.50	297.22	377.72
Alley, square 3094	4	345.9	100.31	344.59	444.90
D street, between Thirteenth and Fourteenth streets se	2	12.8	34.79	47.09	81.88
	4	47.5			
Alley, square 448	4	132.3	49.75	86.49	136.24
Twentieth street, between Massachusetts avenue and Q street nw	6	53.4	397.26	858.94	1,256.20
	8	544.0			
Eighteenth street, between Kalorama road and Wyoming avenue nw	8	297.9	105.63	226.02	331.65
Spring place, between Maple and Arthur streets se	8	235.1	147.37	228.06	375.43
Maryland avenue, east from Tenth street ne	8	210.8	96.88	208.09	304.97
Brown street, west from Valley street, and Caton street, between Scott and Brown streets nw	4	223.6	182.12	286.17	468.29
	8	269.4			
Randolph street, between Seventh street and New Hampshire avenue nw	8	257.8	93.75	200.23	293.98
Quincy street, west from Seventh street nw	8	210.1	99.93	257.53	357.46
Nineteenth street, north from Florida avenue nw	8	212.3	126.50	215.59	342.09
Delaware avenue, north from D street sw	8	262.7	187.64	329.26	516.90
Gales street, between Nineteenth and Twentieth streets, and Twentieth street, north from Gales street ne	8	753.4	261.37	803.97	1,065.34
Twenty-third street, between M and N streets nw	6	11.6	425.87	774.36	1,200.23
	8	952.9			
Nineteenth street, between New York avenue and D street nw	6	13.6	340.75	827.79	1,168.54
	8	886.5			
New York avenue, west from Nineteenth street nw	8	254.5	91.00	179.79	270.79
Eleventh street, between Girard and Harvard streets nw	6	12.8	54.50	116.82	171.32
	8	141.8			
Irving street, between Eleventh street and Sherman avenue nw	8	294.3	130.18	353.96	484.14
Thirteenth street, between Fairmont and Girard streets nw	8	360.8	135.25	301.23	436.48
Q street, between First and Second streets sw	8	376.2	115.38	271.21	386.59
N street, between North Capitol and First streets ne	8	243.0	80.99	190.34	271.33
Thirteenth street, north from Madison street nw	8	248.5	114.63	250.77	365.40
Fifteenth street, between C street and Massachusetts avenue se	6	6.7	187.25	278.08	465.33
	8	315.6			
Half street, between L and M streets se	6	5.2	66.00	160.09	226.09
	8	157.8			
Tennessee avenue, between C and D streets, and D street, between Tennessee avenue and Fourteenth street ne	8	383.0	167.93	260.72	428.65
Hamlin street, between Sixteenth and Seventeenth streets, and Sixteenth street, north from Hamlin street ne	8	395.6	296.49	411.38	707.87
Delafield place, between Fourteenth street and Piney Branch road nw	8	722.2	218.62	605.44	824.06
Fort Stanton road, north from Galen avenue, and Galen avenue, east from Fort Stanton road se	6	11.1	174.43	407.70	582.13
	8	401.9			
T street, west from Nineteenth street nw	3	7.7	119.07	218.79	337.86
	6	10.8			
	8	169.4			
E street, between Eighteenth and Nineteenth streets nw	6	7.2	154.00	348.38	502.38
	8	443.2			
Fifth street, north from T street ne	8	398.7	175.72	445.34	621.06
Bryant street, between North Capitol and First streets nw	8	461.5	118.44	332.80	451.24
East Capitol street, east from First street	4	29.5	67.25	133.57	200.82
	8	133.5			

TABLE II.—*Statement showing cost of water mains laid during fiscal year ending June 30, 1907*—Continued.

	Size.	Length.	Labor.	Material.	Total.
	In.	*Feet.*			
Kenyon street, west of Brightwood avenue nw	6	4.5	$214.13	$581.12	$795.25
	8	700.4			
Twenty-fourth street, between Channing and Franklin streets, and West Virginia avenue, between Channing and Twenty-fourth streets, and Channing street north from West Virginia avenue ne	8	1,350.2	541.06	1,762.84	2,303.90
N street between twenty-fourth, and twenty-fifth streets nw	6	4.8	99.14	219.36	318.50
	8	265.0			
Brightwood avenue, between Webster and Allison streets nw	8	387.7	125.44	365.97	491.41
Mount Pleasant street, between Laurel street and Park road nw	8	558.8	209.95	554.88	764.83
Twentieth street, between Rosedale and Gales streets, and Rosedale street, east from Twentieth street ne	8	605.4	247.44	651.59	899.03
South Carolina avenue, between Thirteenth street and Kentucky avenue, and Kentucky avenue, south from South Carolina avenue se	6	6.9	153.43	323.02	476.45
	8	379.9			
Adams street, west from Fourth street ne	8	207.1	80.00	173.05	253.05
Massachusetts avenue, between Thirteenth and Fourteenth streets se	8	61.8	22.13	38.13	60.26
Nineteenth street, south from Newton street nw	8	118.4	53.00	114.75	167.75
N street, between Seventh and Ninth streets nw	6	23.2	246.49	676.26	922.75
	8	499.1			
Warder street, north from Park road nw	6	8.1	135.76	335.34	471.10
	8	315.0			
Kilbourne street, between Seventeeth and Eighteenth streets nw	8	316.6	97.88	278.43	376.31
Fairmont street, between Sixth street and Brightwood avenue nw	6	3.6	123.63	253.35	376.98
	8	305.1			
First street, between N and O streets nw	6	7.3	110.05	231.21	341.26
	8	278.9			
Q street, between Twentieth and Twenty-first streets nw	6	17.8	442.93	1,100.16	[a] 1,543.09
	8	935.6			
Half street, south from N street se	6	7.9	92.38	170.87	263.25
	8	180.7			
Sixteenth street north from D street se	8	217.1	75.87	156.77	232.64
Douglass streeteast from Twenty-fourth street ne	8	245.3	86.75	177.60	264.35
Chicago street, north from Monroe street, Anacostia	6	9.7	108.11	269.29	377.40
	8	271.5			
Ontario road, between Euclid street and Columbia road nw	8	358.5	137.69	283.71	421.40
Newark street, east from Thirty-third street nw	8	392.8	201.88	423.20	625.08
Decatur street, between Fourteenth street and Piney Branch road nw	8	704.7	212.13	649.75	861.88
E street, east from Twenty-sixth street nw	8	154.4	106.99	194.45	301.44
Twenty-third street, between Q street and Minnesota avenue se	8	505.3	129.44	483.88	613.32
Fifteenth street, between C street and South Carolina avenue se	8	50.0	27.12	38.39	65.51
Fourteenth street, between B and D streets se	8	536.4	228.39	428.87	657.26
E street, east from Second street se	8	216.0	110.00	203.00	313.00
Lanier place, between Quarry and Adams Mill roads nw	3	43.8	539.50	955.64	1,495.14
	8	1,170.4			
Allison street, between Eighth street and Illinois avenue nw	8	854.0	361.55	804.59	1,166.14
Ontario place, between Ontario road and Adams Mill road nw	8	123.5	26.38	107.13	133.51
Manor place, east from Warder street nw	8	396.0	159.79	400.23	560.02
Twelfth street, south from Jackson street se	8	50.9	24.63	85.39	110.02
East street, east from Twenty-sixth street nw	6	8.4	102.93	156.82	259.75
	8	159.0			
East Capitol street, between Sixteenth and Seventeenth streets	8	117.9	73.81	95.51	169,32
Kentucky avenue, south from D street se	8	295.5	143.77	231.59	375.36
C street, east from Sixteenth street se	8	268.9	125.75	221.72	347.47
Genoa street, west from Montello avenue ne	6	5.4	76.12	184.11	260.23
	8	183.2			
Eleventh street, between Otis place and Spring road nw	8	200.7	70.37	234.53	304.90
Gales street, east from Twentieth street ne	6	6.6	88.50	260.37	348.87
	8	308.3			
Eleventh street, between Columbia road and Irving street nw	8	182.4	68.25	130.16	190.41
Macomb street, east from Thirty-sixth street nw	8	52.6	25.19	64.12	89.31
Massachusetts avenue, west from S street, and S street, west from Twenty-fourth street nw	6	5.9	199.44	436.87	636.31
	8	363.8			
East Capitol street, between Sixteenth and Seventeenth streets	8	495.6	354.81	553.16	907.97

[a] Of this amount the surface department and the sewer division each paid $561.12

TABLE II.—*Statement showing cost of water mains laid during fiscal year ending June 30, 1907*—Continued.

	Size.	Length.	Labor.	Material.	Total.
	In.	*Feet.*			
Sixteenth street, north from Park road nw	6	3.5	$94.75	$191.34	$286.09
	8	133.1			
Norris road, east from Spring place se	6	2.0	219.88	503.00	722.88
	8	371.9			
Warder street, south from Park road, and Luray place, between Warder street and Park place nw	8	710.0	393.68	783.65	1,177.33
K street, between Twentieth and Twenty-first streets nw	4	8.6	105.21	198.04	303.25
	6	13.1			
	8	111.2			
Eckington place, between Quincy and R streets ne	8	248.7	122.19	344.90	467.09
Nineteenth street, north from Monroe street, and Monroe street, east from Nineteenth street nw	8	475.8	208.29	397.36	605.65
Fourteenth street, between B and C streets sw	4	6.1	400.48	866.98	1,267.46
	6	46.6			
	8	481.1			
Sherman avenue, north from Irving street nw	8	294.8	154.38	349.05	503.43
Irving street, east from Sherman avenue nw	8	129.5	64.31	110.23	174.54
Fifteenth street, north from Fuller street nw	8	178.5	88.38	161.92	250.30
Sixteenth street, north from Meigs street ne	8	375.6	183.44	485.61	669.05
Q street, between Twenty-third and Twenty-fifth streets se	8	650.8	171.63	639.13	810.76
I street, between Seventh and Eighth streets ne	8	330.0	126.88	333.30	460.18
Warder street, between Lamont and Luray place nw	8	448.6	175.87	467.86	643.73
Girard street, between Fifth and Sixth streets nw	8	318.2	115.82	360.61	476.43
Sixteenth street, north from G street, and G street, between Sixteenth and Seventeenth streets se	6	11.0	179.94	705.67	885.61
	8	544.5			
Delaware avenue, between B and D streets sw	8	325.7	116.97	410.09	527.06
East Capitol street, east from Thirteenth street	8	431.5	134.62	377.58	512.20
Canal street, east from Second street sw	8	252.3	79.97	233.02	312.99
Thirty-sixth street, between Newark and Ordway streets; Norton street, between Thirty-sixth street and Wisconsin avenue; and Ordway street, between Thirty-sixth street and Wisconsin avenue nw	8	1,937.3	615.62	1,812.92	2,428.54
	12	9.5			
Gales street, west from Nineteenth street ne	8	158.0	51.68	143.75	195.43
C street, between Twenty-first and Twenty-second streets nw	8	634.7	152.57	622.99	775.56
Twenty-fourth street, between E street and Pennsylvania avenue nw	4	9.0	1,047.22	2,913.33	3,960.55
	8	2,517.1			
	12	11.2			
Canal street, south from N street sw	8	216.5	103.63	223.21	326.84
Sixteenth street, south from Monroe street nw	8	224.1	96.12	244.11	340.23
K street, between Fifteenth and Sixteenth streets nw	4	5.2	513.58	698.95	1,212.53
	8	589.8			
Morris road, between Spring road and Bryant street se	8	1,123.9	429.01	898.06	1,327.07
Third street, between Maine and Maryland avenues, and Maine avenue, west from Third street sw	4	91.6	689.63	1,174.74	1,864.37
	8	1,007.0			
Thomas street, west from First street nw	8	189.5	88.25	158.51	246.76
New Hampshire avenue, south of N street nw	8	126.9	59.25	171.34	230.59
Manor place, west from Park place, and Park place, south from Manor place nw	6	8.1	160.25	360.63	520.88
	8	401.9			
Park place between Lamont street and Luray place nw	8	212.8	82.19	219.85	302.04
Warder street, between Manor and Newton places, and Newton street, west of Warder street nw	8	585.7	199.12	505.92	705.04
South side of Chevy Chase circle, between Connecticut avenue and Belt road; Belt road, south from Chevy Chase circle, and Northampton street, east from Belt road nw	8	922.8	315.87	969.07	1,284.94
Delaware avenue, south from D street, and Canal street, east from Delaware avenue sw	8	224.8	130.38	305.95	436.33
Q street, east from First street ne	4	3.4	72.50	286.37	358.87
	8	240.9			
Fourteenth street, between Pennsylvania avenue and G street se	8	266.5	93.49	374.97	468.46
Seventeenth street, between Harrison and T streets se	8	356.7	106.69	309.84	416.53
Klingle road, west from Twentieth street nw	4	4.0	134.56	280.05	414.61
	8	295.9			
Upshur street, between Seventh and Eighth streets, and Seventh street, between Taylor and Upshur streets nw	4	3.1	145.62	675.65	821.27
	8	809.7			
Ninth street, between Shepherd and Taylor streets nw	8	396.3	177.63	383.31	560.94
Ninth street, between Webster and Varnum streets; Varnum street, between Ninth street and Brightwood avenue, and Brightwood avenue, between Webster and Varnum streets nw	8	988.1	282.00	842.79	1,124.79
High street, south from Arthur street se	8	403.0	123.57	351.52	475.09
South Carolina avenue, west from Tenth street se	4	3.7	67.18	246.93	314.11
	6	5.8			
	8	157.6			

TABLE II.—*Statement showing cost of water mains laid during fiscal year ending June 30, 1907*—Continued

	Size.	Length.	Labor.	Material.	Total.
	In.	*Feet.*			
Fourteen-and-a-half street, south from C street ne...	6	5.2	$193.18	$271.12	$464.30
	8	320.6			
E street, east from Twelfth street ne.....	4	3.1	77.07	189.94	267.01
	8	208.0			
Columbia road, east of Ontario road nw.....	4	2.9	18.75	51.70	70.45
	8	60.0			
Eighteenth street, south from Bennings road ne.....	4	3.4	108.69	294.97	403.66
	8	314.2			
Twenty-third street, between Naylor and Q streets; Q street, west from Naylor street, and Naylor street, between Twenty-third and Q streets se.....	8	634.8	197.37	610.33	807.70
Chestnut street, between Arthur and Maple streets se.	6	6.3	188.94	302.18	491.12
	8	481.3			
Cedar street, east of Fifth street nw.....	4	3.2	16.00	73.15	89.15
	8	53.8			
Rhode Island avenue, west from First street nw.....	4	3.1	102.51	307.61	410.12
	8	340.5			
Fifteenth street, north from Kentucky avenue se.....	6	4.8	117.50	232.12	349.62
	8	216.5			
Prout street, west from Nicholson street se.....	8	400.5	102.88	313.65	416.53
Navy avenue, east from Railroad avenue, and Railroad avenue, south from Navy avenue se.....	8	383.7	144.75	368.11	512.86
Clifton street, west from Eleventh street nw.....	8	472.6	525.25	399.06	624.31
Adams street, east from First street nw	8	336.7	127.56	341.98	469.54
Iowa circle nw.....	4	3.8	1,082.06	1,499.00	2,581.06
	6	26.7			
	8	1,057.0			
Market space, between Seventh and Eighth streets, and Louisiana avenue, between Sixth and Seventh streets nw.....	4	11.5	1,567.73	3,805.28	5,373.01
	6	36.9			
	8	125.0			
	12	1,678.5			
Canal street, between South Capitol and First streets sw.....	6	7.8	257.55	396.88	654.43
	12	104.7			
Third street south from E street se.....	6	40.3	271.06	812.84	1,083.90
	12	422.8			
D street, between Seventeenth and Nineteenth streets se.....	6	10.7	648.46	1,481.80	2,130.26
	12	996.6			
E street, between Tenth and Thirteenth streets sw...	6	100.2	878.11	2,327.72	3,205.83
	8	37.1			
	12	1,079.2			
Eighth street, between Barry Place and Florida avenue nw	4	5.6	808.52	2,414.31	3,220.83
	6	53.5			
	12	1,504.7			
K street nw, over Rock Creek Bridge.....	6	15.9	137.55	422.39	559.94
	12	172.0			
Fourteenth street north from Fourteenth Street road, and Fourteenth street, between Randolph and Varnum streets nw.....	6	69.0	1,337.18	5,513.48	6,850.66
	8	3.2			
	12	3,391.9			
Pennsylvania avenue and Fifteenth street nw.....	6	26.5	302.43	424.32	726.75
	12	210.6			
Thirtieth street, between P and Q streets; Twenty-eighth street, between Pennsylvania avenue and M street, and Thirty-third street, between P and Volta streets nw.....	6	45.1	2,395.90	4,740.57	7,136.47
	12	1,252.3			
Sixth street, from I to C streets nw, and Four-and-a-half street, from C street, north to E street south...	6	72.3	17,814.89	38,128.42	55,943.31
	8	117.7			
	12	136.0			
	16	48.2			
	24	3.7			
	30	3,650.2			
	36	2,697.6			
Connections and blow-offs in various sections.....	3	10.0	3,483.33	6,227.27	9,710.60
	4	249.8			
	6	1,079.2			
	8	415.3			
	10	5.9			
	12	1,034.7			
Fire hydrants in original locations in various sections.	6	265.4	829.23	5,035.24	5,864.47
	8	685.4			
	12	61.3			
Unfinished water main, June 30, 1906.....	.....	.....	.....	9,485.04	9,485.04
Unfinished water mains, June 30, 1907.....	.....	.....	1,449.14	1,320.03	2,769.17
Total.....	.....	.....	57,090.23	139,976.68	197,066.91
Superintendence and engineering, 5 per cent on total cost.....	.....	.....	9,853.35	.....	9,853.35
Aggregate cost.....	.....	.....	66,943.58	139,976.68	206,920.26

TABLE III.—*Statement of length and cost of water mains laid from July 1, 1878, to June 30, 1907.*

Fiscal year.	48-inch.	42-inch.	36-inch.	30-inch.	24-inch.	20-inch.	16-inch.	12-inch.	10-inch.	8-inch.
	Lin. ft.	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*
1878			40					3,719		
1879								7,409		
1880										
1881										
1882										
1883								1,625		26
1884								1,038		
1885								763		
1886								1,938	701	
1887						4,835		1,124	2,998	
1888								731		
1889					2,312	5,140		5,626	2,784	
1890										
1891								5,201		
1892						2,926	2,500	10,165		
1893								6,473		
1894						278		39,386		
1895					6,617			27,731		
1896					294	8,874		11,873		
1897						2,180		6,877		
1898								7,698		907
1899						1,914		2,220		
1900			10,902		35	1,282	48	167		
1901								10,025		
1902				1,227		203		14,010		
1903	2,123		14,601			35		9,411		
1904	4,019	23	5,231	6,332	18	8,668	24	13,802	68	40,767
1905			2,701	9	42			1,014		31,750
1906	8,155		97		40	716		3,985		34,880
1907			2,697	3,650	4		48	12,066	6	55,798
Total	14,297	23	36,269	11,218	9,362	37,051	2,620	206,066	6,647	164,128

Fiscal year.	6-inch.	4-inch.	3-inch.	2½-inch.	2-inch.	1½-inch.	1¼-inch.	Total.	Cost.
	Lin. ft.	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*	*Lin. ft.*		
1878	12,781	30						16,570	$14,846.20
1879	8,516	1,397						17,322	19,436.03
1880	3,024							3,024	
1881	3,709							3,709	3,110.70
1882	1,920							1,920	1,626.43
1883	4,084							5,735	8,073.70
1884	8,972							10,010	10,492.51
1885	27,766	358	485					29,372	25,865.35
1886	35,192		6,623					44,544	40,025.10
1887	30,041	292	7,124					46,414	56,951.00
1888	9,123	9,148	3,937					22,939	17,626.63
1889	36,742	6,571	8,753					67,928	79,342.16
1890	34,737	2,856	2,855					40,448	19,113.54
1891	56,893	3,142	11,013					76,249	49,702.65
1892	88,709	3,342	1,286					108,926	74,733.04
1893	54,173	8,336	3,458					72,440	56,339.39
1894	86,632	12,832	2,918					142,046	126,599.55
1895	103,785	5,442	2,733					146,308	134,502.31
1896	61,464	1,738	3,202					87,505	89,395.12
1897	71,266	10,595	992			2,104		94,014	77,954.81
1898	52,371	6,735	2,790		1,633	500		72,634	48,661.70
1899	84,291	4,602	2,701		79	133		96,000	65,774.52
1900	53,838	4,211	2,116		17	453		73,059	114,784.72
1901	52,018	2,187	935			646		65,812	47,426.71
1902	35,481	1,414	1,632	242				54,209	57,676.33
1903	32,264	2,004	357				1,045	61,840	98,498.90
1904	2,913	1,745	1,637		1,397			86,644	404,294.81
1905	1,228	578	2,671					39,993	73,402.12
1906	551	781	722				976	50,903	176,297.98
1907	2,209	3,081	869		580			81,008	197,066.91
Total	1,056,693	93,477	71,869	242	3,706	3,836	2,021	1,719,325	2,189,620.92

TABLE IV.—*Average cost per foot for laying water mains of various sizes, excluding repairs to improved pavements, during the fiscal year ending June 30, 1907.*

	Linear feet.	Cost of labor.	Cost of material.	Total cost.
3-inch	807	$0.386	$0.37	$0.756
4-inch	2,392	.371	.56	.931
8-inch	55,279	.424	.948	1.372
12-inch	10,104	.614	1.632	2.246

TABLE V.—*Statement of the length and cost of water mains laid for the extension of the high-service system of water distribution, from July 1, 1903, to June 30, 1907.*

	Laid to June 30, 1906.	Laid during fiscal year 1907.	Total in service June 30, 1907.
1¼-inch.....Linear ft.	2,021	.....	2,021
1½-inch.....do....	2,717	.....	2,717
2-inch.....do....	1,095	580	1,675
3-inch.....do....	5,356	869	6,225
4-inch.....do....	8,623	3,081	11,704
6-inch.....do....	216,749	2,209	218,958
8-inch.....do....	76,685	55,798	132,483
10-inch.....do....	68	6	74
12-inch.....do....	122,814	12,066	134,880
16-inch.....do....	72	48	120
20-inch.....do....	24,151	.....	24,151
24-inch.....do....	7,047	4	7,051
30-inch.....do....	7,568	3,650	11,218
36-inch.....do....	33,532	2,697	36,229
42-inch.....do....	23	.....	23
48-inch.....do....	14,297	.....	14,297
Total	522,818	81,008	603,826
Total cost to June 30, 1906			$1,146,490.12
Total cost for the fiscal year ending June 30, 1907			197,066.91
Aggregate cost to June 30, 1907			1,343,557.03

TABLE VI.—*District pumping station—Pumpage by months.*

	Quantity.		Quantity.
1906.	*Gallons.*	1907.	*Gallons.*
July	846,385,090	January	772,801,300
August	853,776,040	February	758,833,350
September	836,638,390	March	766,197,270
October	835,211,720	April	695,420,830
November	759,678,110	May	738,629,870
December	752,620,350	June	700,207,960

TABLE VII.—*Statement of the number of shallow and deep wells.*

	Shallow wells.	Deep wells.	Total.
Total number in service June 30, 1906	53	32	85
Taken up on this return during the year ending June 30, 1907 (not previously reported)	13	1	14
Total	66	33	99
Closed and discontinued during the year ending June 30, 1907	1	.....	1
Total number in service June 30, 1907	65	33	98

Statement showing in detail the number of draftsmen, levelers, rodmen, and inspectors temporarily required in connection with the water department on work authorized by appropriation for the water department for the year ending June 30, 1907. (Sec. 4, act making appropriation for the water department, approved June 27, 1906.)

Designation.	Per diem.	Amount paid.
2 inspectors	$4.50	$2,754.00
1 inspector	4.00	532.00
7 inspectors	2.50	2,736.25
1 draftsman	4.50	1,410.75
1 overseer	3.00	475.50
Total		7,908.50

Expenditures of the water department (exclusive of meter division).

Pay rolls	$253,838.86	
Material issued, and contract and other vouchers charged direct	266,354.43	
Total for the year		$520,193.29
Special appropriation for meters:		
Pay rolls, charged to the appropriation	13,877.94	
Material purchased and paid for	85,051.59	
		98,929.53
Grand total		619,122.82
Expenditures of the department (exclusive of meters) for 1907		520,193.29
Expenditures for year 1906		487,467.84
Excess for year 1907		32,725.45

Length of water main laid during year 1907, 88,978 feet, or 16.85 miles. Length of water mains in service June 30, 1907, 2,373,381 feet, or 449.5 miles.

During the year the department laid for its own account 81,008 feet of main at a total cost of $197,066.91. This item includes the laying of 6,400 feet of 30-inch and 36-inch trunk mains in Sixth and Four-and-a-half streets northwest, south from I street, at a cost of $55,943.31.

Incident to the railway and deposit work done by the department, there were laid 7,970 feet of water main during the year.

In service June 30, 1907.

	Number.	Net increase (+) or decrease (−) during year.
Stop valves	5,522	+277
Fire hydrants	2,336	+ 78
Public hydrants	273	− 26
Public fountains	123	+ 17

Water mains lowered, 4,057 linear feet.

Cost of operating pumping engines, district station.

Wages of steam engineers, firemen, and oilers	$14,811.54
Material, including the cost of coal	20,345.55
Total	35,157.09

The total pumpage during the year was 9,316,400,280 gallons.

Average cost per 1,000 gallons, 0.377 cents.

Charges for repairs to machinery for pumping not included in the above.

WATER OFFICE, August 16, 1907.

REPORT OF WATER REGISTRAR.

WASHINGTON, *September 7, 1907.*

SIR: I have the honor to submit the annual report of the revenue and inspection branch of the water department, showing in detail the work accomplished during the fiscal year ended June 30, 1907.

OFFICE WORK.

Accounts checked	63,029
Accounts posted	63,029
Cash receipts posted	$535,950.92
Checking bills on agents' lists	22,167
Checking changes in house numbers	1,816
Coupons assorted	235,364
Curb-cock and box locations recorded	1,322
Curb-cocks issued	2,013
Cut-off orders made	1,084
Cut-off orders recorded	1,084
Cut-off and turn-on orders filed	1,682
Delinquent water-rent notices made	11,296
Delinquent water-rent lists made	109
Drawings, plats, or designs made	12
Emergency examinations made	808
Envelopes addressed	33,804
Examinations of records for meters	5,200
Examination of records for private services	184
Examination of schedule accounts for vacant houses	17,910
Examinations of service pipes recorded	4,061
Files indorsed and returned	764
Files received and abstracts made	764
Files indexed	764
House-to-house examinations recorded	77,364
House-to-house examination reports checked	942
House-to-house leaks found and recorded	19,090
House numbers changed on records	2,148
Items recorded on cards	6,628
Letters and cards received	2,654
Letters and cards sent out	3,100
Letters copied	3,100
Letters filed	2,654
Letters indexed	3,100
Lists indexed	3,454
Lists made and revised	3,008
Meter accounts opened, new	5,872
Meter bills made	11,832
Meter accounts computed	33,074
Meter-account computations checked	27,170
Meter index cards made	15,830
Meters ordered out	370
Meter tests recorded	1,096
Notices of leaks to agents, etc	4,842
Numbers placed on alley houses	769
Numbers put on plats for alley houses, squares	322
Permits for use of water for building purposes	725
Permits for use of fire hydrants	36
Plats made of house locations, etc	484
Plumbers' permits examined and approved	2,191
Posting changes on meter accounts	3,264
Posting changes on schedule accounts	4,398
Posting changes on schedule index	3,614
Premises in which leaks were found	15,977
Putting up and addressing real estate lists	824
Record cards made	39,414
Refunds of duplicate and erroneous payments	156
Reports assorted and filed	2,616
Reports checked	2,616
Reports made, weekly	20

Report made, annual	1
Requests for water-rent bills filed	576
Requests for water-rent bills indexed	576
Requisitions made	44
Schedule accounts brought down for fiscal year 1908	20,894
Schedule accounts opened, new	1,950
Schedule bills made	72,600
Second examinations of house-to-house leaks recorded	15,000
Special examinations for changes in house numbers	686
Special examination slips made	59,351
Special examinations recorded	59,351
Special leak examinations recorded	20,010
Statements made	138
Taps issued	1,870
Tap record cards made, new	1,971
Tap records examined	1,604
Tap locations recorded	1,870
Time records entered	11,136
Transfer of records from subscription book	1,176
Turn-on orders made	598
Turn-on orders recorded	598
Vacant houses listed	1,280
Verifying bills	5,528
Vouchers made	8
Water-main measurements given	3,110

FIELD WORK.

Cut off by request	1,084
Cut off for nonpayment, meter accounts	18
Delinquent water-rent notices served, schedule	11,296
Delinquent water-rent notices served, meter	1,734
House-to-house examinations	77,364
Meter bills delivered by inspectors	5,756
Meters read	33,074
Meters repaired in place	30
Meters set	110
New services passed	1,870
Repairs to water services, etc., passed	2,191
Schedule bills delivered by inspectors	30,857
Second examinations of house-to-house leaks	16,480
Special examinations	57,354
Special leak examinations	20,010
Taps made	1,870
Turned on by request	598
Water-main tax notices delivered by inspectors	1,967

GENERAL.

The work of the revenue and inspection branch of the water department has shown an increase of about 33⅓ per cent over last year. The actual clerical force of the office being unable to cope with the conditions, it was necessary, as in former years, to detail inspectors to office duties, thus curtailing the outside force on necessary field work. This increase in work has been noted along all lines and a number of matters of importance, which were not undertaken previous to this year, have been taken up and pushed rapidly forward, thus bringing the office up to a standard of greater efficiency.

In this connection may be mentioned the locating and cutting off of old and abandoned service pipes, which have in past years caused numerous complaints and in some cases threatened serious trouble; the numbering of alley houses as a positive means of identification for the collection of water rents; the checking of all office work to insure a greater degree of accuracy, and cutting off the water from all vacant houses as a protection to the revenue and to prevent waste from leaking fixtures.

The actual office force, in order to cope with the work, should be increased by at least three clerks, thereby dispensing, to a great extent, with the employment of the field force for office duty.

LEAKS AND WASTES.

As will be seen by the accompanying table, the general leakage and wastage of water has been cut down about one-fifth, the records showing that out of 15,977 premises in which leaks were found there were 19,090, the number of premises visited in this connection being 77,364.

Leaks and wastes reported by letter and telephone, which are not included under the above head, receive special consideration as, in numerous instances, the conditions are such that considerable damage to property might be caused if permitted to exist for even a short period. Under this head there were 20,010 leaks reported, traced, and remedied.

Premises in which actual wastes were found have been kept constantly under observation and a repetition of the condition checked.

SPECIAL INSPECTIONS.

Under this head are included ratings for revenue; remeasuring, platting, and adjusting discrepancies as made by parties taking out permits for the introduction of water; the rating of business establishments, the nature of the business frequently changing, necessitating a different charge; changes in names of streets and house numbers and ratings for the use of water for construction purposes, such as grading, masonry construction in connection with conduit and street railway work.

The number of inspections under this head were 59,351.

SERVICE CONNECTIONS.

One thousand nine hundred and fifty-one new service connections were made, inspected, and locations recorded during the year. Two thousand one hundred and ninety-one repairs to water service pipes and appurtenances were inspected and recorded.

WATER METERS.

Five thousand eight hundred and seventy-two water meters were installed during the year, making the total number now in use 8,273.

All large consumers and premises in which automatic or running fixtures existed were metered at the close of the fiscal year.

Thirty-three thousand and seventy-four water meters were read, computed, and recorded during the year.

Water meters are kept constantly under observation and all meters showing a registration in excess of 100,000 cubic feet per quarter are read weekly.

REVENUES.

The table of comparative revenues shows an increase over the previous year of $130,165.02. Owing to the change from the flat rate to the meter system there will be a gradual reduction in the revenues as this work progresses.

CARD-RECORD SYSTEM.

All records of the office have been or will be brought under the card-record system, there being about 100,000 records and accounts kept in this manner.

CONDITION OF WORK.

While the work of this office shows a large increase over that of last year, and greatly in excess of any previous year, yet at the close of business of the fiscal year it was up to date. This result was attained largely by the efficiency of the employees and their readiness to meet conditions at all times, for which I now take occasion to express my appreciation and commend them to your kind consideration.

Very respectfully, your obedient servant,

GEO. W. WALLACE,
Water Registrar.

Capt. WM. KELLY,
Corps of Engineers, U. S. Army,
Asst. to Engineer Commissioner District of Columbia.

TABLE 1.—*Statement of collections.*

Water rents:		
Schedule	$335,457.41	
Meters	130,994.78	
		$466,452.19
Water-main assessments		51,313.97
Taps and stopcocks		9,487.10
Building purposes	$2,437.28	
Sale of old material	6,254.73	
Assessments for water services	5.65	
		8,697.66
		535,950.92

TABLE 2.—*Comparative statement of revenue.*

Fiscal year.	Water rents.	Water-main assessment.	Taps and stopcocks.	Miscellaneous.	Total revenues.
1894	$245,899.60	$86,975.44	$4,497.00	$1,168.79	$338,540.92
1895	251,872.71	72,972.24	4,537.55	2,100.60	331,483.10
1896	255,439.11	27,666.57	4,926.00	1,191.09	288,323.77
1897	253,500.16	53,653.39	5,157.00	1,128.28	313,438.83
1898	264,784.48	58,152.56	6,910.65	1,104.42	330,952.11
1899	276,065.54	62,937.43	6,327.00	1,545.15	346,875.12
1900	286,257.63	53,420.70	5,298.15	4,452.53	349,339.01
1901	303,557.19	56,359.72	6,140.85	3,064.39	369,122.15
1902	318,404.39	65,962.47	6,368.16	4,659.00	395,394.02
1903	326,789.26	70,880.32	6,787.77	3,628.18	408,085.53
1904	340,131.78	51,575.87	6,522.67	2,839.66	401,069.92
1905	349,264.26	32,192.77	8,693.80	5,737.69	395,798.52
1906	359,699.35	34,352.70	9,100.00	2,633.85	405,785.90
1907	466,452.19	51,313.97	9,487.10	8,697.66	535,950.92
1908[a]	456,000.00	60,000.00	9,000.00	5,000.00	530,000.00

[a] Estimated.

TABLE 3.—*Water meters.*

Name of meter.	½ in.	⅝ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.	2½ in.	3 in.	4 in.	6 in.	Total.
Crown	1	5	14	31	.....	32	20	.....	11	.....	5	119
Davies	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Empire	51	.....	.....	.....	.....	.....	.....	.....	1	1	.....	53
Gem	.....	.....	.....	.....	.....	.....	34	.....	20	11	2	67
Hersey disk	.....	5,272	73	2	.....	4	4	.....	4	1	.....	5,360
Hersey torrent	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Keystone	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1
Lambert	.....	50	101	49	.....	44	23	.....	4	3	1	275
Nash	6	25	515	445	.....	250	104	1	23	8	7	1,384
Niagara	.....	.....	.....	2	.....	1	3	.....	.....	.....	.....	6
Pittsburg	.....	48	32	39	.....	22	15	.....	16	1	.....	173
Standard	.....	.....	16	13	.....	10	2	.....	2	.....	.....	43
Thomson	4	3	88	90	.....	54	30	.....	6	3	.....	278
Trident	.....	2	3	5	.....	3	.....	.....	3	.....	.....	16
Union	.....	2	47	49	.....	12	13	.....	2	.....	.....	125
Worthington	.....	258	.....	6	.....	8	26	.....	12	2	.....	312
King	.....	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	50
American	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
Total	62	5,718	890	731	1	440	274	1	104	31	15	8,267
Registers	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6

REPORT OF THE SUPERINTENDENT OF SEWERS.

WASHINGTON, *September 9, 1907.*

CAPTAIN: I have the honor to submit the following report of the operations of the sewer division for the fiscal year ended June 30, 1907:

Under the appropriation for cleaning and repairing sewers and basins the following described work was performed:

Main sewers cleaned	feet..	24,724
Pipe sewers cleaned	do....	86,101
Catch basins cleaned	number..	45,809
Catch basin outlets cleaned	do....	78
Manholes cleaned	do....	2,351
Gravel basins cleaned	do....	18

Sumps cleaned	number..	8
Street detritus removed	cubic yards..	12,874
Pipe sewers constructed	feet..	159.6
Pipe sewers repaired (includes basin connections)	do....	756
Basins constructed	number..	2
Basins repaired	do....	73
Basins abandoned	do....	3
Basin tops replaced	do....	26
Manholes constructed	do....	9
Manholes repaired	do....	34
Manholes abandoned	do....	2
Cast-iron covers replaced	do....	95
Bulkheads constructed in sewers	do....	7
Depressions over sewers filled	do....	58
Total number of jobs performed		866

Cost of cleaning main sewers	$5,221.48
Cost of cleaning pipe sewers	2,634.96
Cost of cleaning catch basins	8,670.36
Cost of cleaning catch basin outlets	244.36
Cost of manual flushing of sewers	2,009.48
Cost of cleaning gravel basins	697.78
Cost of cleaning sumps	34.59
Cost of constructing pipe sewers	1,683.26
Cost of repairing main sewers	151.98
Cost of repairing pipe sewers	2,699.34
Cost of constructing catch basins	70.38
Cost of repairing catch basins (includes replacing tops)	2,603.87
Cost of abandoning catch basins	44.30
Cost of constructing manholes	419.34
Cost of repairing manholes	344.32
Cost of abandoning manholes	20.65
Cost of replacing cast-iron covers	995.40
Cost of constructing bulkheads in sewers	16.95
Cost of filling depressions over sewers	865.76

A wooden platform or apron was constructed at the outlet of Boundary sewer at a cost of $323.74.

The filling in of the abandoned portion of old Tiber Creek sewer was continued at intervals during the year, the cost being $459.88.

Two gangs were employed during the year cleaning catch basins and one in flushing pipe sewers.

MAIN AND PIPE SEWERS.

Sewers were constructed under contracts along James Creek Canal, between H and M streets, and in Pennsylvania avenue northwest, between Thirteenth and Fourteenth streets, and in Linwood place, between D and E streets, chargeable to appropriation for main and pipe sewers, 1906.

Sewers were also constructed under contracts in Second street southwest, between Canal street and Maryland avenue; in Water street southwest, between Seventh and Fourteenth streets; in Seventh street southwest, between E and G streets; in Sixth street northwest, between H and I streets; in I street, between Sixth and Seventh streets.

There were constructed by day labor 1,588 linear feet of pipe sewers, varying in size from 10 to 24 inches diameter (10 manholes), divided among 9 jobs, the average length per job being 176.45 linear feet, the average cost per job being $547.20.

There were constructed 121 linear feet of 4-foot diameter sewer in Thirteenth street northwest, crossing Pennsylvania avenue. This sewer was completed in the fiscal year 1908.

There were constructed 102 linear feet of 6-inch lateral connection crossing Pennsylvania avenue northwest, between Thirteenth and Fourteenth streets.

There were constructed 108 catch basins (3 manholes). Two thousand five hundred and twenty-two linear feet connections, varying in size from 8 to 24 inches in diameter, were laid, divided among 42 jobs, the average length of connection per job being 60.05 linear feet, the average cost per basin job being $176.05.

SUBURBAN SEWERS.

Sewers were constructed under contracts in Soldiers' Home grounds and in Rosedale street northeast, between Eighteenth and Nineteenth streets, and in Eighteenth street between Rosedale street and Bennings road, chargeable to the appropriation for Suburban sewers, 1906.

Sewers were also constructed under contracts in Park place northwest, between Lamont street and Park road; in Brightwood avenue northwest, between Florida avenue and W street; in W street, between Brightwood avenue and Sixth street; in squares 4065 and 4064, West Virginia avenue, between Oates and Mount Olivet road; in Kendall street, between Gallaudet and Capitol avenue; Capitol avenue, between Mount Olivet road and Kendall street; Mount Olivet road, between Capitol avenue and West Virginia avenue (Ivy City trunk sewer); in Zoological Park, between Adams Mill road and Rock Creek; in Bennings road northeast, between Eighteenth and Nineteenth streets, and in Nailor street, between the Eastern Branch and South Railroad avenue, between Nailor street and Pennsylvania avenue.

There were constructed by day labor 465 linear feet of pipe sewers, varying in size from 12 to 15 inches in diameter (3 manholes), divided among two jobs, the average length per job being 232.5 linear feet, the average cost per job being $487.12.

There was also constructed an approach to the sewer in Soldiers' Home grounds; also constructed, at intersection of Third and Channing streets, 21 linear feet of 24-inch diameter sewer and 18 linear feet of arch of 6 feet 6 inches diameter sewer.

ARIZONA AVENUE SEWER.

The section of Arizona avenue sewer under contract with L. R. Colbert and Michael McNamara was completed.

A section of Arizona avenue sewer was awarded to the Cranford Paving Company, which will be completed in the fiscal year 1908.

FALLS BRANCH SEWER.

A section of the Falls Branch sewer, under contract No. 3885 with E. G. Gummel, was completed.

The second section of this sewer is in course of construction under contract with James A. Coyle, and will be completed in the fiscal year 1908.

ASSESSMENT AND PERMIT WORK.

Permit work.—There were constructed by day labor 1,000 linear feet of pipe sewer, varying in size from 8 to 15 inches in diameter (3 manholes), divided among 13 jobs, the average length per job being 77 linear feet and the average cost per job being $148.39, the average cost per foot being $1.929.

Assessment system.—There were constructed by day labor 32,188.25 linear feet of pipe sewers, varying in size from 8 to 24 inches in diameter (165 manholes), divided among 131 jobs, the average length per job being 245.72 linear feet and the average cost per job being $533.89, the average cost per linear foot being $2.11.

There were also constructed 5 catch-basins; 7 catch-basins were reconstructed; 1 catch-basin was adjusted; 117 linear feet of connections were laid, varying in size from 10 to 12 inches in diameter, divided among 11 jobs, the average length of connection per job being 10.64 linear feet, the average cost per basin job being $64.41.

Sewers were constructed, under contracts, in Eighteenth street northeast, between B and East Capitol streets; in block 17, Howard University subdivision; in Minnesota avenue, between Harrison and Eighteenth streets; in Nineteenth street, Newton street and Park road, etc., and in Nailor street, between South Railroad avenue and Minnesota avenue, etc.

SEWAGE-DISPOSAL PROJECT (CONDITIONS TO DATE).

The sewerage pumping station and machinery installation is practically complete, with the exception of the tile covering of the engine-room floor. Nearly all of the machine tools for repair purposes have been installed. The pumping machinery was placed in service on the last day of the fiscal year 1906–7, and the temporary pumping plant was withdrawn from service. By day labor the hydraulic-pressure equipment was installed; also the engine-room floor system and the coal and ash pockets in the boiler house.

Tests were made of machinery erected under contract, indicating that the requirements were fully met. The B street and New Jersey avenue trunk sewer was com-

pleted, except the connections with the old intercepted sewers, which could not be made until the pumping machinery was placed in service. These connections are now being made under contract and by day labor.

The Four-and-a-half street high-level intercepting sewer was completed—the upper section under contract with B. J. Sullivan and the outlet section with tide-gate chambers by day labor.

The Water and L street intercepting sewer was completed under contracts with B. J. Sullivan and E. G. Gummel. The section crossing James Creek Canal was constructed by day labor.

Outfall sewer.—The second section was completed under contract with Warren F. Brenizer Construction Company, and the last section, under contract with the same company, was about two-thirds completed.

The two lines of 5-foot pipes from the shore of the channel of the Potomac, which will be used as the outlet section of the outfall sewer, was completed under contract with J. H. Louchheim. The trunk mains of the project are practically completed, with the exception of the outlet sewer connecting old B street sewer with the tidal basin, which is now under construction under contract with the Warren F. Brenizer Construction Company.

Practically all of the sewage formerly discharged into James Creek Canal has been diverted to the pumping station, and the canal from L street northward is being filled.

About nine-tenths of the sewage formerly discharged into Seventeenth Street Canal has been diverted to the pumping station, and within the next two months it is expected that all will be so diverted. There remains the work of completing connections and installing regulating apparatus before the sewage-disposal part of the project can be considered as complete. No provision for the dikes of the project has been made by Congress. Until the dikes shall be constructed the project will lack one feature necessary to protect the low area from flooding during high freshet stages of the Potomac River.

TABLES.

Table No. 1 shows work performed under contracts.

Table No. 2 shows work performed by day labor (permit system).

Table No. 3 shows work performed by day labor (assessment system).

Table No. 4 shows work performed by day labor under "Miscellaneous trust-fund deposits."

Table No. 5 shows work performed by day labor under "Main and pipe sewers."

Table No. 6 shows work performed under appropriation for suburban sewers by day labor.

Table No. 7 shows work performed by day labor under "Elimination of grade crossings."

Table No. 8 shows work performed by day labor under "Miscellaneous appropriations."

Table No. 9 shows the average cost per linear foot of sewers and the average cost of catch-basins constructed by day labor.

Table No. 10 shows the number of inspectors and other employees temporarily employed and the appropriation from which paid.

Table No. 11 shows the number of electric conduits laid during the fiscal year and the total number of conduits constructed.

Table No. 12 shows the amount of gas mains laid during the fiscal year.

RECAPITULATION.

	Miles.
Length of sewers constructed in fiscal year 1907:	
Main sewers, 16,419.84 linear feet	3.11
Pipe sewers, 73,848.9 linear feet	13.987
Total length of sewers constructed	17.097
Total length of sewers on June 30, 1907:	
Main sewers	112.203
Pipe sewers	389.244
Total	501.447
Cost of sewer system to June 30, 1906	$14,827,248.34
Cost of sewers (exclusive of maintenance) 1907	692,366.06
Total cost	15,519,614.40

I respectfully renew the recommendation made in my last annual report that construction appropriations be made available until expended, instead of lapsing with the fiscal year. There is no apparent advantage in the present custom and the funds could be more satisfactorily used if they were available until expended. The cost of work during the past year has increased considerably above the cost of previous years on account of the advanced cost of labor and materials.

The practical completion of the sewage-disposal project makes it wise to consider the subject of sewage purification when the population of the District shall have increased beyond the limit of the capacity of the Potomac River to dilute its sewage so that its discharge into the river in crude condition will be inadmissible.

It is believed that the Potomac River will afford sufficient water to dilute the sewage from 500,000 persons, and when the population shall increase beyond that number it will be necessary to partially purify the sewage before its discharge, to avoid the creation of insanitary river conditions. The subject of sewage purification is still in an experimental state. Twenty years ago the sewage farm seemed to furnish the best solution of the problem. Later the intermittent filtration bed was strongly advocated, and from the experiments with intermittent filter beds was developed the contact filter. Still later the sprinkling filter was introduced and that method of treatment to-day seems to have the advantageous position, though it is vigorously contested by the advocates of the contact-filter system. Extravagant claims were made for sewage treatment in septic tanks, which to-day is generally considered as an advantageous preliminary process to be followed by further treatment if a nonputrescible effluent is demanded. The best practical examples of sewage purification are to be found in England, the many large centers of population situated on small rivers forcing an early consideration of the problem. As a result of visits to several of the large and probably the most important purification works I submit the following observations:

London.—Prior to 1858 the sewage of London was discharged into the Thames by sewers laid in the valleys of the water courses situated within the city limits. As a result the river became foul, and intercepting sewers were constructed which discharged the sewage of the city at Barking on the north side and at Crossness on the south side of the river about 12 miles below London Bridge. These sewers were completed in 1865. Later the increased volume of sewerage led to the use of sedimentation basins in which the sludge is deposited after the sewage has been treated with lime and copperas. The sludge is carried to sea and there disposed of. It is recognized that further purification will be necessary, and experiments made upon London sewage led to plans for the installation of contact filters. No funds have been provided for their installation, however. About six years ago Mr. Dibden constructed a contact bed 12 feet deep, 1 acre in area which has since been in experimental use. Doctor Clowes added 3 feet of hard coke, walnut size, a short time ago, making the present depth of the bed 15 feet. It is found that the original bed is badly choked, so that the effective depth of bed is the upper 3-foot layer, which produces a satisfactory effluent. This bed and others inspected leads to the opinion that the particles of which beds are constructed should be of hard character to prevent crushing.

Doctor Clowes stated to me that, in his opinion, while the trickling system may be developed to give good results, yet that system is in an experimental stage, while good practical results have been obtained by the contact-bed system. He states that finer ballast should be used in second contact beds than that used in the first contact beds, and that hard materials should be used to minimize the amount of dust which tends to clog the filter.

Manchester (population, 600,000).—In 1894 the first sewage purification works were placed in service. These works consisted of a series of tanks into which the sewage was discharged after it had been treated with lime and copperas and the effluent was discharged into the Mersey Canal. The sludge was pushed by manual labor into channels leading to ejectors by which it was forced into elevated tanks. From these tanks it was discharged into a sludge boat by which it was conveyed to sea. During 1902–1905 the works were modified and contact beds were constructed and put in service. As operated, the sewage first passes through a screening house, when mechanical appliances remove floating substances, sand, and grit; thence it is led into a sedimentation tank, thence to 12 septic tanks, thence to the filter beds, the effluent being discharged into the Mersey Canal. Ordinarily one sedimentation tank is in use; during storms the sewage passes through four tanks. The excess sewage during storms is diverted to the storm water filter beds. The sedimentation tanks are each 300 feet long, 100 feet wide and 6 feet deep and have concrete floors. The septic tanks have the same dimensions, with capacity equal to half the daily flow of sewage. There are 92 filter beds, each covering one-half acre, their nominal aggregate capacity being 63,000,000 gallons in twenty-four hours. The depth of bed is 3 feet 4 inches. Underdrains are formed of radial channels in the concrete bottoms covered with perforated slabs, the top of which are flush with

the concrete floor. The spaces between underdrains is formed in ridges. The material of the bed is furnace clinker between one-fourth and 2½ inches, the coarsest portions of which are used to cover the subdrains and concrete bottom. Ordinarily the beds are filled and emptied four times each day, with full period of two hours for each cycle.

The storm water beds are used to treat excess sewage during storms. There are 32 beds, covering 26 acres, the material being clinkers 2 feet 6 inches deep. These beds are filled to a depth of 6 inches above the top surface of the clinker when discharge commences. After the storm the water remaining in the bed is drawn off by opening the drainage sluice gates. The purification effected is not wholly satisfactory, and it is proposed to install beds for secondary treatment upon the basis of double the rate of operation of the primary beds. Upon the occasion of my visit one of the beds was being renewed after four and one-half years' use. It appeared to be badly clogged with broken-down clinker and sludge. Additional underdrains were being laid, the impression being that sufficient underdrains were not provided for the beds when originally constructed.

An experimental second contact bed has been operated for three and one-half years with good results attained. It is claimed that the flocculent matter in suspension in the effluent from the primary beds is fully eliminated. The gaseous odor from the septic tanks was disagreeably noticeable on the public road about a half mile from the works. The operation of controlling gates from a central station was given a trial, and, proving unsatisfactory, was abandoned.

Birmingham.—The Birmingham sewage purification works receive sewage from 900,000 persons. In 1880 land for a sewage farm was acquired, and upon that land the sewage was disposed of until recently. The installation of sprinkling filters is now nearly complete, and, in May last, I was fortunately enabled to inspect the works in operation and under construction with Mr. J. D. Watson, Mem. I. C. E., who designed and constructed the plant.

The sewage is first discharged into six open tanks; about 30 feet from the receiving end of each tank is a transverse division wall over which the sewage flows into the second section of the tank. The grit and other heavy materials are retained in the first section and are removed about once a week, one tank being cleaned each working day. The materials removed are used to fill up low portions of the old sewage farm. The removal of sludge and grit at the short intervals noted, causes little odor and consequently minimizes the nuisance usually incident to that important detail of the operation of sewage plants. The second portions of the six tanks are used as primary septic tanks; the sewage from these tanks passes over a weir into a channel in which it flows to the secondary septic tanks. These tanks were formerly used for sedimentation of sewage before it was applied to the land. From the septic tanks the sewage is conveyed in a closed conduit to a reservoir about 3 miles distant, thence to six tanks constructed on the Dortmund principle wherein sludge is deposited which is used to fill adjacent low ground. From these tanks the sewage is conveyed to the filters. The filters are each about 1.5 acres in area and 6 feet deep. A concrete floor about 6 inches thick is first laid, the surface having a slight inclination toward a collecting gutter laid along one of the longer sides of the rectangle and just outside the inclosing wall. Upon the concrete floor a second floor of drainage tile is laid. Contiguous tiles are laid about an inch apart, a lug being cast on each section to insure against too close contact. These tiles provide semicircular openings above the floor about 4½ by 9 inches, 15 inches apart, which discharge into the collecting gutter. The material of the filter, consisting of broken stone, pottery waste or other hard material, is then placed upon the tile floor. The lower layer is of 2½ inches ballast and the material of the bed grades up to the three-eighths inch ballast of the top layer. The material used is well screened and graded. The sides of the beds are protected by dry rubble walls. The sewage is distributed by a grill of piping laid upon the top layer of stone with sprinkling nozzles, so placed that they divide the beds into 8-foot squares. The pipes have openings midway between the sprinklers, and the positions of the sprinklers are changed when the appearance of the surface of the bed indicates that such is desirable. The sewage flows from the filters to tanks where the flocculent suspended matter is deposited. From these tanks the effluent flows into the river Tame. The dry solid matter removed by the Dortmund tanks amounts to 1.027 tons per million gallons of septic sewage. The results attained indicate that each acre of sprinkling filter bed will efficiently purify 750,000 gallons of Birmingham sewage, the effluent being nonputrescible. The sewage received amounts to the rate of 60 gallons per capita per day of contributing population the water supply rate is 35 gallons per capita. Upon the basis of population, each acre of sprinkling filter bed will purify sewage from 12,500 persons. The city of Columbus, Ohio, conducted in 1904–5 a series of experiments on sewage purification, and the deduction made was that each acre of sprinkling filter bed will purify 2,000,000 gallons of sewage per day, the amount of sewage on basis of population

being 120 gallons per capita per day, so that each acre of sprinkling filter bed will purify sewage from 16,666 persons.

The Birmingham results have the advantage that they are deduced from the operation of full-size beds under ordinary working conditions.

The purification of sewage by modern methods consists of a series of operations each of which partially eliminates the putrescible constituents.

When the amount of sewage from Washington shall exceed the capacity of the Potomac River to dilute it to a nonputrescible condition, the installation of septic tanks will probably effect sufficient partial purification, so that the effluent from the tanks may be discharged into the river for a considerable number of years. Afterwards steps to secure further purification will probably be required.

I wish to record my appreciation of the efficient and faithful work of the employees of the sewer division during the past fiscal year.

Very respectfully, your obedient servant,

D. E. McCOMB,
Superintendent of Sewers.

Capt. WM. KELLY,
Corps of Engineers, U. S. Army,
Assistant to Engineer Commissioner, D. C.

WASHINGTON, *August 29, 1907.*

SIR: I have the honor to report as follows on the construction and operation of the sewage-disposal system, District of Columbia, for the fiscal year ending June 30, 1907, and to submit the accompanying tabulation of construction work done under various contracts and by day labor:

Sewage pumping station.—The building under contract No. 3186 was completed October 31, 1906. The erection of pumping machinery under contract No. 3011, with the Allis-Chalmers Company, was practically completed. Operation of this equipment was begun on the last day of the fiscal year and the temporary service station abandoned that day. The freight elevator equipment, with the Albro-Clem Elevator Company, under contract No. 3507; the screen machinery, under contract No. 3374, with the Otis Elevator Company; the switchboards and tablet boards, under contract No. 3651, with the Malcolm W. Hill Company; the electric crane, under contract No. 3652, with Pawling & Harnischfeger, and the coal-handling machinery, under contract No. 3602, with the John A. Mead Company, were completed and placed in service during the year. The electric generating equipment, with the Malcolm W. Hill Company, was substantially completed and also partly in service throughout the year. In addition to this contract work the hydraulic pressure equipment for the station was installed, and the engine-room floor system and the ash pockets and coal-storage pockets in boiler room were constructed by day labor.

During the year capacity tests were run at the sewage pumping station on units each of the 65,000,000 and 20,000,000 pumping engines. Also the contract tests were made on the electric crane, hydraulic elevator, and coal-handling plant. These equipments equaled or exceeded the contract requirements in these tests.

The B street and New Jersey avenue trunk sewer.—Sections of this sewer, under contract No. 3300, with Andrew Gleeson, and under contract No. 3506, with the Gayer Peter Construction Company, were completed, and work begun under contract No. 3903, with the Warren F. Brenizer Construction Company, making closures and connections with the existing sewerage system.

The Four-and-one-half street high level intercepting sewer.—The upper section, under contract No. 3639, with B. J. Sullivan, was completed during the year, as was also tide-gate chambers and outlet section to the Washington channel, constructed by day labor.

The Water and L street intercepting sewer.—The storm-water section and branches for the drainage of the James Creek Valley and the trunk line sewage interceptor were completed under contract No. 3491, with B. J. Sullivan. Under contract No. 3841, with E. G. Gummel, the sewage interceptor extension to the head of the Washington channel was completed, as also were the sections under the James Creek Canal at L street, by day-labor construction.

The outfall sewer.—Construction on the second section, under contract No. 3505, with the Warren F. Brenizer Construction Company, was completed and the work on the final section, under contract No. 3716, with the same, was about two-thirds completed.

The construction of the outfall 60-inch pipes to midchannel under the river at Grimes, on the Potomac, was completed under contract No. 3696, with J. H. Loucheim. Also considerable progress was made on the shore connection with this work, which includes the sea wall, wharf, and outlet chamber, by the day-labor force.

Throughout the year the temporary pumping station was operated on the Tiber Creek high-level system. This station also furnished steam for electric power and light plant and for auxiliary pumping and heating in the new station from October 1, 1906, to March 1, 1907.

Very respectfully,

ASA E. PHILLIPS,
Assistant Engineer in Charge, Engineer Office, Second and N streets SE.

Mr. D. E. MCCOMB,
Superintendent of Sewers, District of Columbia.

TABLE No. 1.—*Statement of sewers*

No. of contract.	Contractor.	Location.	Size of sewer.	Length of sewer.
				Feet.
3739	Jas. A. Coyle	James Creek Canal, between H and M streets.	24-inch pipe	1,662
3741	R. J. Beall Construction Co.	Pennsylvania avenue, between Thirteenth and Fourteenth streets nw., and Linwood place, between D and E streets.	24-inch pipe 12-inch pipe	691 293
3730	E. G. Gummel	Soldiers' Home grounds	3.25 by 4.125 feet 2.50 by 3.75 feet 21-inch pipe 18-inch pipe	873 51 25 36
3742	.....do	Rosedale street ne., between Eighteenth and Nineteenth streets; and Eighteenth street, between Rosedale street and Bennings road.	4-foot diameter 18-inch pipe	999.44 21
3819	.....do	Second street sw., between Canal street and Maryland avenue.	24-inch pipe 18-inch pipe	215 331.8
3841	.....do	Water street sw., between Seventh and Fourteenth streets.	24-inch pipe 21-inch pipe	1,971 1,353
3867	.....do	Seventh street sw., between E and G streets.	3 feet diameter 2 feet 6 inch diameter	330 358
3914	R. J. Beall Construction Co.	Sixth street nw., between H and I, and I, between Sixth and Seventh.	21-inch pipe	349.8
3826	E. G. Gummel	Park place nw., between Lamont street and Park road.	2.50 by 3.75 feet	400
3862	Lyons & Knott	Brightwood avenue, between Florida avenue and W street, and W street nw., between Brightwood avenue and Sixth street.	3 foot 6 inch diameter 3 foot 3 inch diameter	697 664
3896	E. G. Gummel	Squares 4065 and 4064 West Virginia avenue, between Oatis and Mount Olivet road.	.....	.....
3913	.....do	Kendall street, between Gallaudet and Capitol avenue; Capitol avenue, between Mount Olivet road and Kendall street; Mount Olivet road, between Capitol and West Virginia avenues.	.....	.....
3914	R. J. Beall Construction Co.	Zoological Park, between Adams Mill road and Rock Creek.	2 feet 6 inches diameter.	346.5
3914	.....do	Bennings road ne., between Eighteenth and Nineteenth streets.	4 feet diameter 3 feet 6 inches diameter.	115 165
3892	The Warren F. Brenizer Co.	Naylor street, between Eastern Branch and Southern Railroad avenue; Southern Railroad avenue, between Naylor street and Pennsylvania avenue.	24-inch pipe 18-inch pipe	1,071 503.7
3868	L. R. Colbert and Michael McNamara.	Arizona avenue, between Tunlaw and Loughboro roads; Macomb street, between Arizona and Idaho avenues; Idaho avenue, between Macomb and Woodley streets; Woodley street, between Idaho avenue and Thirty-ninth street.	24-inch pipe 21-inch pipe 15-inch pipe	2,220.6 3,670.6 2,410.7
3885	E. G. Gummel	Valley of Falls Branch, between Conduit road and Massachusetts avenue.	.....	.....
				21,824.14

[a] Includes work previously reported.
[b] Work incomplete, payment made on account.
[c] Work completed since July 1, 1907.

constructed under contracts.

Allowance to contractor.	Materials.		Cost of inspection.	Cost of repairs to pavements.	Total cost.	Appropriation.
	Charged.	Not charged.				
$6,017.42	$551.18	$1,436.21	$522.00	$135.01	$8,661.82	Main and pipe sewers, 1906.
3,093.56	308.34	671.54	152.00	898.55	5,123.99	Do.
5,087.94	1,874.17	46.33	160.00	.....	7,168.44	Suburban sewers, 1906.[a]
4,109.81	1,719.33	19.50	360.00	.....	6,208.64	Suburban sewers, 1906.
1,425.80	169.03	361.32	76.00	138.19	2,170.34	Main and pipe sewers, 1907.
10,477.54	1,091.68	2,601.59	852.50	.....	15,023.31	Do.
4,255.72	846.87	10.49	192.00	403.52	5,708.60	Do.
975.52	114.81	242.34	102.00	.....	1,434.67	Do.
1,956.32	710.16	10.00	148.00	.....	2,824.48	Suburban sewers, 1907.
8,809.34	2,285.09	20.50	304.00	1,092.33	12,511.26	Do.
12,479.06	5,002.65	.....	590.50	.....	18,072.21	Do.[b]
2,729.70	978.30	.....	12.00	.....	3,720.00	Do.[b]
1,653.48	377.56	10.42	124.00	.....	2,165.46	Do.[c]
1,675.04	468.45	7.21	100.00	.....	2,250.70	Do.
2,090.50	470.03	1,317.64	62.00	.....	3,940.17	Do.[c]
15,356.19	2,513.77	5,326.86	832.00	.....	24,028.82	Arizona avenue.[c]
13,450.46	1,831.50	.....	752.00	.....	16,033.96	Falls Branch sewer.[b]
95,643.40	21,312.92	12,081.95	5,341.00	2,667.60	137,046.87	

Sewerage disposal system, District of Columbia. Statement of

No. of contract.	Contractor.	Section.	Character of work.
3011	Allis Chalmers Co	Pumping station equipment	Pumps, engines, boilers, etc
3186	A. B. Stannard	Superstructure sewerage pumping station.	Building complete
3300	Andrew Gleeson	Section C, B street and New Jersey avenue trunk sewer.	1,597 linear feet 14 by 15-foot trunk sewer.
3374	Otis Elevator Co	Pumping station equipment	Screen machinery
3491	Sullivan Bros	Water and L streets intercepting sewer.	1,669 linear feet 9 foot by 10 foot 6 inch sewer.
3505	The Warren F. Brenizer Co.	Outfall sewer construction, section B.	3,392,49 linear feet 8 foot 4 inch by 9 foot 4 inch sewer; 536.55 linear feet 4 foot 6-inch diameter; 66 linear feet 24-inch pipe.
3506	Gayer-Peter Construction Co.	Section D, B street and New Jersey avenue and trunk sewer.	956 linear feet 12 by 12 foot; 463 linear feet 10 by 11 foot; 588 linear feet 10 foot by 10 foot 6 inch; 1,644 linear feet 7 foot sewer; 315 linear feet 6 foot 6 inch diameter sewer.
3507	Albro Clem Elevator Co	Pumping station equipment	Freight elevator
3553	Malcolm W. Hill & Co	do	Electric generating plant
3602	John A. Meade Co	do	Coal-handling machinery
3639	Sullivan Bros	Four-and-a-half street high-level intercepting sewer.	3,010 linear feet 7 foot 6 inch diameter; 7 foot diameter, and 5 foot 6 inch diameter sewer.
3651	Malcolm W. Hill Co	Pumping station equipment	Switch board, tablet boards, and cabinets.
3652	Pawling & Harnischfeger	do	15-ton electric crane
3696	J. H. Louchheim	Outfall	60-inch diameter cast-iron pipe, outfall from shore to channel.
3716	The Warren F. Brenizer Co.	Outfall sewer construction, section C.	7,435 linear feet 8 foot 4 inch by 9 foot 4 inch sewer.
3875	A. Dean & Co	Dredging, Anacostia River	5,469.83 cubic yards excavation.
3903	The Warren F. Brenizer Co.	B street and New Jersey avenue trunk sewer.	Junction section, Trunk line

[a] $1,172 cost of inspection charged to contractor.
[b] $148 cost of inspection charged to contractor.

TABLE NO. 2.—*Statement of sewers laid under the appro-*

No. of order.	Location.	Pipe sewers laid (length in feet).				Manholes.	Branches.
		8-inch.	10-inch.	12-inch.	15-inch.		
1	Brightwood avenue, between Morton and Kenyon streets			47			1
6	Cathedral avenue nw., between Connecticut avenue and Twenty-eighth street			89			1
13	Eleventh street nw., between Park road and Monroe street			153			6
4	Square 552			176		1	10
5	Fourteenth street and Spring road					1	
12	Square 429		8				1
14	Florida avenue nw., between First and R streets		59			1	4
8	Railroad avenue se., from Navy avenue westward				170		1
11	Square 79		41				1
2	Twelfth street ne., between Jackson and Irving streets			64			2
7	Square 238	40					2
9	Square 2552		20				1
10	Square 3036			102		1	
3	U street nw., between Eleventh and Twelfth streets	31					2
		71	128	631	170	4	32

work under contracts, fiscal year ending June 30, 1907.

Completed.	Payments on contracts.	Materials of construction. Chargeable to contractor.	Materials of construction. Not chargeable to contractor.	Cost of inspection.	Cost of repairs to pavements.	Appropriations.
No....	$202,400.00	$172.50	.....	$474.00	.....	Sewerage pumping station.
Yes...	289,036.93	12,742.50	.....	4,465.38	.....	Do.
Yes...	190,261.78	50,982.57	$477.56	[a] 3,172.50	$1,457.76	Section C, B street and New Jersey avenue trunk sewer.
Yes...	10,000.00	.....	.....	.....	.....	Sewerage pumping station.
Yes...	150,275.70	31,251.47	963.99	2,620.50	4,399.26	Water and L streets intercepting sewer.
Yes...	114,874.77	30,054.41	304.09	1,644.50	.....	Outfall sewer and siphon.
Yes...	115,841.08	30,877.28	503.51	[b] 2,672.25	2,145.62	B street and New Jersey avenue trunk sewer, section D.
No....	1,520.10	.....	.....	.....	.....	Sewerage pumping station.
No....	3,000.00	.....	.....	232.50	.....	Unused balances.
No....	1,900.00	.....	.....	[c] 671.50	.....	Unused balances, sewer disposal system.
Yes...	62,643.14	13,295.29	210.12	1,212.00	3,033.97	Four-and-a-half street high-level intercepting sewer.
Yes...	4,354.00	.....	.....	.....	.....	Sewerage pumping station.
No....	6,300.00	.....	.....	.....	.....	Unused balances.
No....	26,998.64	.....	.....	[d] 5,090.25	.....	Outfall sewer and siphon.
No....	232,105.00	40,937.50	.....	2,453.00	.....	Outfall sewer and siphon.
Yes...	1,750.35	.....	.....	86.00	.....	Unused pipe balances.
No....	21,978.68	3,663.45	.....	412.50	.....	B street and New Jersey avenue trunk sewer, section F.

[c] $576 cost of inspection charged to contractor.
[d] $1,980 cost of inspection charged to contractor.

priation for assessment and permit work. (Permit system.)

Amount of deposit.	Cost to District of Columbia.	Cost to depositor.	Total cost.	Amount returned.	For whom done.	Overseer.	Date of completion.
$40.00	$38.82	$38.83	$77.65	$1.17	Mrs. Wilhelmina Widmayer.	Thomas..	Dec. 11, 1906
75.00	74.76	74.76	149.52	.24	John W. Brawner.....	.....do....	Jan. 12, 1907
175.00	139.40	139.41	278.81	35.59	W. S. Minnix.....	Palmer...	Jan. 20, 1907
175.00	142.36	142.37	284.73	32.63	Jas. F. Brennan.....	Lanigan..	Nov. 15, 1906
110.00	107.12	107.12	214.24	2.88	Capital Traction Co.....	.....do....	Dec. 5, 1906
10.00	.....	.....	.....	.....	Harriet L. Wise.....	Palmer...	(a)
70.00	.....	.....	.....	.....	Willige, Gibbs & Daniel....	.....do....	(a)
180.00	169.87	169.88	339.75	10.12	Albert Lindstrom.....	Ward.....	Feb. 12, 1907
40.00	.....	.....	.....	.....	John J. Earley.....	Palmer...	(a)
60.00	135.46	60.00	195.46	.....	August L. Grimm.....	Thomas..	Dec. 11, 1906
40.00	33.75	33.76	67.51	6.24	James T. Eslin.....	Ward.....	May 6, 1907
22.00	.....	.....	.....	.....	Kennedy, Davis & Co.....	Thomas..	(a)
130.00	124.57	124.58	249.15	5.42	Middaugh & Shannon.....	.....do....	June 5, 1907
25.00	20.97	20.98	41.95	4.02	William H. Monogue.....	.....do....	Dec. 11, 1906
1,152.00	987.08	911.69	1,898.77	98.31			

[a] Awaiting bill; repairs to pavements.

TABLE No. 3.—*Statement of sewers laid under the appropriation*

No. of order.	Location.	Pipe sewer laid (length in feet).						
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch
102	Adams street ne., between Third and Fourth streets					164.00		63.0
244	Adams street nw., between First and North Capitol streets				213.0			
100	Brightwood avenue nw., between Iowa avenue and Webster street			552.0				
107	Brightwood avenue nw., between Webster and Allison streets			432.5				
122	B street se., between Seventeenth and Eighteenth streets				450.0			
140	Belmont street nw., westward from Sixteenth street			369.0	153.1	3.00		
167	Bryant street ne., between Third and Fourth streets						220.0	
168	Bryant street ne., between Second and Third streets					396.50		
216	Brightwood avenue nw., between Varnum and Webster streets		230.00					
224	Brightwood avenue nw., between Gresham and Harvard streets		33.50					
105	Columbia road nw., between Champlain street and Ontario road		48.50					
125	Caton place nw., between Scott and Brown places		180.00					
143	Columbia road, between Ontario road and Champlain street		18.00					
160	Connecticut avenue, abutting lot 94, block 8, Woodley Park				50.0			
170	Clifton street nw., between Eleventh and Thirteenth streets				248.5			
171	Clifton street nw., between Eleventh and Thirteenth streets		228.50	248.5				
106	Decatur street nw., between Fourteenth and Fifteenth streets			480.0				
108	Decatur street nw., between Fifteenth and Piney Branch road		224.50					
111	Delafield street nw., between Fourteenth and Fifteenth streets		521.50					
112	Delafield street nw., between Fifteenth street and Piney Branch road		156.00					
199	Dahlia street nw., between Fifth street and Piney Branch road		255.00					
101	Emerson street nw., between Iowa avenue and Piney Branch road			452.7				
121	E street nw., between Tenth and Eleventh streets			124.4		155.30		
124	E street se., between Fifteenth and Sixteenth streets			360.0				
130	Euclid street nw., between Champlain street and Ontario road			67.5				
139	Eighteenth street nw., between Kilbourne and Lamont streets			278.0				
144	Eighth street se., between B and C streets		29.34					
151	Eleventh street, between Columbia road and Irving street			41.0				
152	E street se., between Second and Third streets			233.6				
159	East place, from North street eastward		205.00					
162	Euclid street nw., between Sherman and Brightwood avenues			500.0				
187	Eckington place ne., between Quincy street and R street			109.5				
210	East Capitol street between Thirteenth and Fourteenth streets ne			167.0	230.0			
	Eighteenth street ne., between B and East Capitol, etc			722.6	503.4	87.10		760.0
103	Fourteenth street and Iowa avenue nw., between Decatur and Emerson			24.3				
110	Flagler place nw., between V and W streets		49.00					
117	Square 552			62.0				

[a] Work begun in fiscal year 1906.
[b] Work completed in fiscal year 1908.
[c] Awaiting bill for repairs to pavements.

for assessment and permit work. (*Assessment system*).

Manholes built.	Basins.			Branches.	Cost of materials.	Cost of labor and contingencies.	Cost of repairs to pavements.	Cost of work by plumber.	Total cost.
	Built.	Rebuilt.	Adjusted.						
1				2	$223.12	$281.17			[a] $504.29
1				6	138.20	253.47			[b] 391.67
1				1	269.79	775.39			(c)
2					229.52	770.93	$185.08		1,185.53
2				6	310.88	668.97	60.32		1,040.17
4				3	342.41	600.06			(c)
1					197.23	400.02			597.25
1					264.87	542.58			807.45
1				8	91.45	242.04			(c)
				3	15.26	77.18			(c)
				3	18.75	57.72			76.47
1				4	79.35	325.98			405.33
				1	7.28	32.96			40.24
				1	32.52	74.49			107.01
1					167.62	389.64			557.26
2				2	233.69	724.26			957.95
2					256.77	490.46			747.23
				4	84.62	294.87			379.49
2				13	236.55	532.68			769.23
				6	53.16	219.18			272.34
2				3	137.80	417.45			555.25
1					224.66	530.06			754.72
2				9	247.11	495.45	256.58		999.14
3				10	228.77	446.99	37.68		713.44
				2	29.06	99.49			(c)
2				12	162.49	361.10			523.59
				2	12.82	29.04			41.86
				3	19.60	51.04			70.64
1				2	124.46	254.62			(c)
2				4	117.96	261.54			379.50
2				7	282.34	653.85			936.19
1				4	66.63	141.73			208.36
1				4	212.14	558.35			770.49
6				39	1,629.15	4,702.49			[d e] 6,331.64
1					35.03	51.29			[a] 86.32
				3	20.63	52.81			73.44
1				6	52.39	82.09			134.84

[d] Includes allowance to contractor and cost of inspection.
[e] Work performed under contract No. 3907 by J. A. Coyle.

TABLE No. 3.—*Statement of sewers laid under the appropriation*

No. of order.	Location.	Pipe sewer laid (length in feet).						
		8-inch.	10-inch.	12-inch.	15-inch	18-inch.	21-inch.	24-inch.
120	Fourteenth street se., between C street and Massachusetts avenue.	.....	.....	450.0	.....	.....	.....	.....
128	Fourteenth and Newton streets (southwest corner)	.....	.....	9.0	.....	.....	.....	.....
131	Fifteenth street se., between C street and South Carolina avenue	.....	.....	457.0	.....	.....	.....	.....
133	Fairmont street nw., between Brightwood avenue and Sixth street	.....	.....	136.0	214.0	.....	.....	.....
148	Fourteenth and K streets se. (northwest corner)	.....	.....	12.0	.....	.....	.....	.....
149	Square 4058, Trinidad	.....	54.50	.....	.....	.....	.....	.....
153	Flagler street, from W street northward	.....	48.00	.....	.....	.....	.....	.....
158	Square 57	.....	.....	141.0	.....	.....	.....	.....
161	Fourteenth street se., between South Carolina avenue and D street	.....	.....	220.0	238.0	.....	.....	.....
181	Florida avenue nw., between Fourteenth street and alley, block 2660	.....	.....	95.6	.....	.....	.....	.....
185	Florida avenue nw., between Twenty-second and R streets	63.5	.....	.....	.....	.....	.....	.....
189	Fifteenth street nw., from Fuller street northward	.....	.....	.....	156.5	.....	.....	.....
198	Square 587	.....	.....	46.5	.....	.....	.....	.....
213	Square 468	.....	.....	134.0	.....	.....	.....	.....
226	Fourteenth street se., between Pennsylvania avenue and G street	.....	.....	175.0	.....	.....	.....	.....
228	Fourteenth street nw., between Spring road and Randolph street.	.....	.....	343.0	.....	232.00	.....	.....
241	Fifteenth and Church streets nw. (northeast corner)	.....	.....	6.0	.....	.....	.....	.....
247	Fifteenth and Q streets nw. (northeast corner)	.....	.....	.....	.....	.....	.....	.....
248	Fifteenth and K streets nw. (northeast corner)	.....	.....	.....	.....	.....	.....	.....
145	G street se., between Tenth and Twelfth streets	.....	.....	165.0	.....	.....	.....	.....
186	G street ne., between Third and Fourth streets	.....	.....	350.0	46.5	.....	.....	.....
212	G street se., between Sixteenth and Seventeenth, and Sixteenth street, between G street and Georgia avenue..	.....	.....	331.6	.....	141.40	.....	.....
	Howard University Subdivision, block 17	.....	.....	490.0	281.0	.....	.....	.....
197	Half street se., between N and O streets	.....	.....	475.0	.....	.....	.....	.....
200	High street se., between Valley and Griswolds Addition	.....	.....	158.0	.....	.....	.....	.....
220	High street se., between Valley and Maple streets	.....	.....	365.0	.....	.....	.....	.....
234	H street nw., between Nineteenth and Twenth-first streets	.....	.....	18.0	.....	.....	.....	.....
183	Idaho and Macomb streets nw., between Woodley road and Thirty-eighth street	.....	.....	466.5	.....	.....	.....	.....
193	Irving street nw., between Sherman and Brightwood avenues	.....	.....	.....	.....	155.00	.....	.....
204	Q street nw., between Tenth and Eleventh streets	.....	.....	135.5	.....	.....	.....	.....
190	K street se., between Second and Third streets	.....	.....	.....	.....	.....	237.0	.....
195	K street se., between Third and Fourth streets (north side)	.....	95.00	184.0	.....	.....	.....	.....
196	K street se., between Second and Third streets (south side)	.....	.....	128.5	.....	.....	.....	.....
202	K street se., between Third and Fourth streets (south side)	.....	95.00	.....	.....	.....	.....	.....
203	K street se., between Fourth and Fifth, and Fifth street, between K and L	.....	.....	208.0	.....	.....	.....	.....
209	K street sw., between Four-and-a-half and Sixth streets	33.0	51.00	.....	.....	.....	.....	.....

[a] Awaiting bill for repairs to pavements.
[b] Work completed in fiscal year 1908.

for assessment and permit work. (*Assessment system.*)—Continued.

Manholes built.	Basins. Built.	Basins. Rebuilt.	Basins. Adjusted.	Branches.	Cost of materials.	Cost of labor and contingencies.	Cost of repairs to pavements.	Cost of work by plumber.	Total cost.
2				3	$242.23	$506.81			$749.04
	1				20.11	29.23			49.34
3				7	268.33	530.91			799.24
3				7	254.17	452.14	$23.62	$2.68	732.61
	1				27.62	28.93			56.55
				6	23.23	63.02			86.25
				4	19.39	70.65			90.04
2				7	117.75	267.15			384.90
3				13	318.55	652.93	52.27		1,023.75
1				6	75.21	211.95	9.07		296.23
				1	21.85	86.00			(a)
				2	97.30	225.50			322.80
				4	25.10	42.51	17.10		84.71
				3	59.67	124.61			(a)
1				7	98.84	215.23			314.07
2				10	334.23	891.62			(a)
		1			25.35	36.95			62.30
					8.06	20.40			b 28.46
					7.67	20.76			b 33.43
				5	76.90	226.48			303.38
2					213.21	546.55			(a)
3				21	311.10	627.46			(a)
3					372.58	1,500.37			c d 1,872.95
2				9	239.47	610.24			849.71
				2	74.79	257.38			(a)
2				4	236.32	551.30			(a)
		3			36.55	103.85			140.40
2					244.19	876.52			1,120.71
				6	108.29	411.25			(a)
1				5	79.53	380.02			(a)
1					254.79	616.91			871.70
1				6	136.26	375.32	50.26		561.84
1				4	85.11	250.40			335.51
				4	34.97	118.26	32.91		186.14
2				3	133.58	302.05			(a)
1				2	49.75	89.95			139.70

c Includes allowance to contractor and cost of inspection.
d Work performed under contract No. 3820 by J. A. Coyle.

TABLE No. 3.—*Statement of sewers laid under the appropriation*

No. of order.	Location.	Pipe sewer laid (length in feet).						
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.
126	Lanier place nw., between Adams Mill and Ontario road			90.0				
137	L street nw., between Twenty-first and Twenty-second streets			78.0				
172	Luray place nw., between Park place and Warder street				415.5			
194	Lamont street nw., between Warder street and Soldiers' Home					462.00		
221	L street sw., between Water and Robinson streets			258.0				
	Minnesota avenue, between Harrison and Eighteenth streets			1,833.2				
109	Moore & Barbour's addition, block 10		537.10					
114	Mount Pleasant street nw., between Lamont street and Park road, etc			318.6		42.60		
115	Monroe street nw., westward from Sixteenth street		60.00					
116	Monroe street nw., eastward from Sixteenth street		94.00					
154	Manor place nw., between Park place and Warder street			325.0				
206	M street se., between Half and First streets			349.0				
238	M street sw., between Half and South Capitol street		173.50	189.0				
240	Massachusetts avenue and Fifteenth street nw. (southeast corner)			18.0				
177	Macomb street, between Thirty-fifth and Thirty-sixth streets		540.00					
138	Nichols avenue se., between Chicago street and Maple avenue			170.0				
146	N street ne., between First and North Capitol streets			322.8	360.3	60.00		
182	Square 981		85.40					
192	N street se., between Half and First streets			367.0	58.0			
211	Nineteenth and R streets nw. (southwest corner)			3.0				
222	Ninth street nw., between Upshur and Taylor streets		75.00					
235	N street, between New Hampshire avenue and Twenty-first street, and New Hampshire avenue	182.0						
242	Newton street nw., between Fourteenth street and Holmead place			428.0				
	Nineteenth street, between Newton street and Park road, etc			322.6		190.75	364.7	189.2
	Nailor street, between S, R. R. avenue, and Minnesota avenue, etc		211.50	1,143.3	1,136.7			
141	O street nw., between First and North Capitol streets			345.4				
142	Square 1000			81.5				
163	Square 1060			73.5		280.00		
178	Square 1058		53.00	113.6	191.4			
215	Square 1015			95.0				
237	Square 1188	11.0						
127	P street nw., between Twenty-first and Twenty-second streets		40.00					
134	Park road nw., between Park place and Warder street					481.00		
150	Park road nw., between Seventeenth and Eighteenth streets			159.5				
155	Park place nw., between Park road and Manor place					304.00		
164	Park place nw., between Park road and Warder street			200.0				
227	Pennsylvania avenue se., between Thirteenth and Fourteenth streets			361.5		26.50		
129	Reservoir View, etc			74.5				

[a] Awaiting bill for repairs to pavements.
[b] Work performed under contract No. 3892 by the Warren F. Brenizer Co.
[c] Includes allowance to contractor and cost of inspection.

for assessment and permit work. (*Assessment system.*)—Continued.

Manholes built.	Basins. Built.	Basins. Rebuilt.	Basins. Adjusted.	Branches.	Cost of materials.	Cost of labor and contingencies.	Cost of repairs to pavements.	Cost of work by plumber.	Total cost.
1					$63.31	$208.51			$271.82
				4	37.58	113.21			150.79
1					249.63	623.77			873.40
2				8	349.29	913.19			1,262.48
1				8	133.41	258.84			392.25
6				6	831.72	2,786.83			(a b c)
6				6	324.05	1,226.41			(a)
2				4	216.37	558.32	$11.13		785.82
1					37.05	79.58			116.63
					34.36	125.03			(a)
1				17	177.29	503.89			681.18
1				9	172.06	353.57			(a)
2				20	176.41	496.58			(a)
		1			30.38	34.25			64.63
2				16	233.68	870.64			1,104.32
2				2	119.07	212.16	20.29		351.52
3				2	498.64	1,444.49	17.23		1,960.36
1				4	52.54	116.92	58.72		228.18
3				9	254.59	535.72			790.31
		1			24.18	36.18			60.36
1				1	44.52	150.54			195.06
2				2	93.41	453.82	17.33		564.56
2				13	236.03	574.53			(a)
4					747.03	2,831.71	151.15		d e 3,729.89
8				27	1,216.69	4,266.02			b c 5,482.71
2				3	197.13	553.18	28.15	(e)	778.46
				2	38.23	96.54			134.77
1				10	267.62	520.17			787.79
2				5	222.93	547.55	184.83		955.31
				1	41.92	89.79			131.71
				1	4.50	9.41			(a)
					15.09	71.93	3.81		90.83
3				6	408.23	791.83			(a)
1				1	100.64	204.76		$3.00	308.40
2					262.28	574.95			837.23
1				6	115.86	261.62			377.48
2				13	214.46	414.77			(a)
				3	33.74	177.35			211.09

d Constructed under contract No. 3820 by Jas. A. Coyle.
e Includes $3.30 cost of repairs to service pipe by water department.

TABLE NO. 3.—*Statement of sewers laid under the appropriation*

No. of order.	Location.	Pipe sewer laid (length in feet.)						
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.
166	R street nw., between Massachusetts avenue and Twenty-second street						75.0	
174	Reservoir View (block 2)			80.0				
175	Rosedale street ne., between Twentieth and Twenty-first streets			310.0				
180	Robinson street sw., between L and M streets			220.0				
232	Rhode Island avenue nw., between First and Second streets		134.50					
104	Square 70							
132	Sixteenth street se., between C and D streets			342.0				
147	Six-and-a-half and L streets se. (northeast corner)			12.0				
156	Square 732			229.0				
157	Sixth and G streets nw. (southeast corner)							
179	Sixth street nw., from Fairmont street southward		124.00					
191	Second street se., between I and K streets			97.0				
201	Second and N streets se							
208	Sheridan circle, between Massachusetts avenue and R street				116.0			
218	South Carolina avenue se., between Sixth and Seventh streets			137.4				
219	Seventh street nw., between Taylor and Upshur streets			314.0			35.0	
229	Sixteenth street se., between T and Harrison streets		272.50					
230	Seventeenth street se., between T and Harrison streets		244.00					
231	Seventeenth and K streets nw. (southeast corner)			18.0				
233	South Carolina avenue se., between Ninth and Tenth streets			144.5				
239	Seventeenth and L streets nw. (northeast corner)			3.0				
249	South Carolina avenue, between Thirteenth street and Kentucky avenue		136.00					
250	Seventh street nw., between Kennedy and Longfellow							
113	Thirteenth street nw., between Monroe street and Park road			75.0				
118	Thirteenth street nw., between U and V streets			331.5				
169	Third street ne., between Bryant and Channing			325.0				
173	Twenty-third and E streets nw. (southwest corner)		18.00					
176	Thirty-fifth street nw., between Lowell and Macomb	278.0						
184	Square 207			37.0				
188	Thirty-eighth street nw., between Macomb and Woodley		288.00					
225	T street se., between Minnesota avenue and Seventeenth street			685.0				
236	Square 3036			172.5				
243	Thirteenth street nw., between Madison and Nicholson	90.0	355.00					
217	Varnum street nw., between Brightwood avenue and Ninth street			26.0				
119	Wisconsin avenue nw., between M street and Chesapeake and Ohio Canal		244.80	174.7				
123	Wisconsin avenue nw., between M street and Chesapeake and Ohio Canal			75.0				
135	Warder street nw., between Park road and Newton street				300.0			

[a] Work begun in fiscal year 1906.
[b] 28 side and 35 corner concrete-basin tops constructed.
[c] Awaiting bills for material.

for assessment and permit work. (*Assessment system.*)—Continued.

Manholes built.	Basins.			Branches.	Cost of materials.	Cost of labor and contingencies.	Cost of repairs to pavements.	Cost of work by plumber.	Total cost.
	Built.	Rebuilt.	Adjusted.						
				1	$89.78	$177.87			$247.65
				5	31.64	134.78			166.42
1				22	168.03	387.03			555.06
1				2	111.80	229.33			341.13
1				1	52.76	165.02			217.78
						17.07			[a] 17.07
2				7	200.27	376.83			577.10
	1				22.33	39.88			62.21
1				13	134.27	334.18	$24.90		493.35
			1		.51	6.30			6.81
				1	49.05	160.84			209.89
				4	46.35	130.02			176.37
						163.50			[b c]
1				1	84.14	195.21			279.40
1				3	78.73	168.12			[d]
2				17	206.70	644.86			851.56
1				10	168.07	755.18			923.25
1				18	198.31	352.01			[d]
	1				33.00	40.06			73.06
1				6	126.95	312.80			[d]
		1			24.75	37.35			62.10
				2	44.73	166.34			[e] 211.07
						48.94			[e] 48.94
1					48.97	63.13			112.10
1				12	177.27	453.77	66.86		697.90
1					141.27	312.87			454.14
	1				32.19	38.59			70.78
1				4	105.21	443.80			549.01
1				2	35.88	52.44	37.55		125.87
1				11	139.74	476.67			616.41
3					543.40	1,681.97			2,225.37
3				7	141.54	391.11			532.65
2				2	155.45	650.28			805.73
3				3	119.15	226.51			[d]
5				14	286.11	1,007.34			1,439.84
				4	33.41	111.16	7.09		151.66
2				6	223.21	426.34			649.55

[d] Awaiting bill for repairs to pavements.
[e] Work completed in fiscal year 1908.

TABLE No. 3.—*Statement of sewers laid under the appropriation*

No. of order.	Location.	Pipe sewer laid (length in feet).						
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.
136	Warder street nw., between Park road and Manor place	.....	.....	163.0	.....	.....	.....	.....
165	Warder street nw., between Manor place and Newton street	.....	.....	265.0	.....	.....	.....	.....
207	Wisconsin avenue, between M street and Chesapeake and Ohio Canal	.....	.....	132.0	.....	.....	.....	.....
214	Webster street nw., between Brightwood avenue and Ninth street	.....	175.0	.....	.....	.....	.....	.....
	Total	657.5	6,383.6	23,013.4	5,361.9	3,181.1	931.7	1,012.2

for assessment and permit work. (*Assessment system.*)—Continued.

Manholes built.	Basins.			Branches.	Cost of materials.	Cost of labor and contingencies.	Cost of repairs to pavements.	Cost of work by plumber.	Total cost.
	Built.	Rebuilt.	Adjusted.						
1	.....	.....	.....	6	$89.29	$251.42	.....	.....	$340.71
1	.....	.....	.....	2	143.05	461.11	.....	.....	604.16
1	.....	.....	.....	5	68.61	299.08	$13.17	.....	380.86
1	.....	.....	.....	8	87.43	319.16	.....	.....	(a)
192	5	7	1	732	24,287.40	66,068.93	1,513.49	$5.68	71,870.03

a Awaiting bill for repairs to pavements.

TABLE NO. 4.—*Statement of sewers laid under miscellaneous trust fund deposits.*

No. of order.	Location.	Pipe sewers laid (length in feet).						Manholes built.	Basins built.	Branches.	Amount of deposit.	Cost of work.	Amount returned.	For whom done.	Overseer.	Date of completion.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.									
300	D street sw., between Twelfth and Thirteenth streets.	.....	238	6	.....	90	33	4	....	11	(a)	(b)	.....	Pennsylvania R. R. Co.	Prince.....	
309	Eighth street nw., between E and F streets.	.....	.....	c18	.....	.....	.....	.....	.....	.....	$40.00	$32.81	$7.19	Geo. A. Fuller Co.....	Thomas	Apr. 26, 1907
301	Fifteenth street nw. between H and New York avenue.	.....	.....	.....	236	63	.....	2	....	2	1,700.00	1,258.86	441.14	Jas. Berrall.....	.....do.....	Nov. 9, 1906
307	Fifteenth street nw., south of H street.	.....	.....	.....	.....	.....	.....	.....	.....	d1	10.00	8.88	1.12	J. W. Cooney.....	Lanigan....	Apr. 10, 1907
310	Fourteenth street se., between G street and Pennsylvania avenue.	11	.....	.....	.....	.....	.....	.....	.....	1	20.00	14.35	5.65	Harry Wardman.....	.....do.....	May 11, 1907
316	Square No. 50.....	18	.....	.....	.....	.....	.....	.....	.....	.....	35.00	19.76	15.24	N. H. Shea.....	Thomas....	May 25, 1907
304	H street ne., just west of Baltimore and Ohio R. R. tracks.	.....	.....	.....	.....	.....	.....	.....	.....	.....	(e)	12.95	.....	Baltimore and Ohio R. R. Co.f	Lanigan....	Jan. 14, 1907
308	H street nw., between Ninth and Tenth streets.	.....	.....	.....	.....	57	.....	1	.....	.....	250.00	226.93	23.07	B. Stanley Simmons....	Thomas....	Apr. 27, 1907
302	Ingleside Terrace, between Eighteenth and Nineteenth streets.	.....	.....	6	.....	.....	.....	.....	.....	.....	65.00	41.39	g23.61	Swartzell, Rheem & Hensey Co.	Lanigan....	Nov. 13, 1906
314	Square No. 1207.....	30	.....	.....	.....	.....	.....	.....	.....	3	60.00	60.00	.....	Julius Wenig.....	Thomas....	May 29, 1907
311	Quincy street nw., between Fourteenth street and Cedar road.	.....	138	.....	.....	.....	.....	.....	.....	10	200.00	183.90	16.10	Harry Wardman.....	.....do.....	May 15, 1907
313	Ross place nw. (north end of).....	96	.....	.....	.....	.....	.....	2	....	1	200.00	166.24	33.76	John Sherman.....	.....do.....	May 18, 1907
305	Sixteenth street and Scott Circle (southwest corner).	.....	.....	.....	.....	.....	.....	.....	.....	.....	10.00	3.06	h6.94	O. G. Staples.....	Palmer.....	Mar. 29, 1907
306	Seventh street sw., between Virginia avenue and C street.	.....	.....	30	12	.....	.....	1	2	....	(e)	163.77	.....	Philadelphia, Baltimore and Washington R. R. Co.	Lanigan....	Apr. 5, 1907
312	Second street sw., in line of Virginia avenue.	.....	.....	42	.....	.....	.....	.....	1	....	(e)	(b)	.....	.....do.....	.....do.....	May 21, 1907
303	Square No. 221.....	.....	.....	114	.....	.....	.....	1	.....	.....	450.00	(b)	.....	Union Trust Co.....	Thomas....	Jan. 11, 1907
315	Tenth street ne., between F street and Maryland avenue.	17	.....	.....	.....	.....	.....	.....	.....	1	25.00	22.12	2.88	Selina W. Williams.....	Ward.....	May 21, 1907
	Total.....	172	376	216	248	210	33	11	3	30	3,065.00	2,215.02	576.70			

a Work begun in fiscal year 1906.
b Awaiting bills for repairs to pavements.
c Replacing sewer damaged by employees of depositer.
d Placing Y branch in sewer.
e Chargeable against general deposit.
f Placing manhole cover over subway.
g Basin adjusted.
h Manhole lowered.

TABLE NO. 5.—*Statement of work done by day labor under the appropriation for main and pipe sewers.*

No. of order.	Location.	Pipe sewers laid (length in feet).							4-foot diameter.	Manholes built.	Basins built.	Branches.	Cost of materials.	Cost of labor.	Cost of repairs to pavements.	Cost of work by plumber.	Total cost.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.									
529	Bryant street nw., just east of First street			15							1		$28.68	$36.67			$65.35
548	Bates street nw., between First and Third streets			36							3		58.73	94.36		$5.50	158.59
531	Corcoran street nw., between Sixteenth and Seventeenth streets			72							4		86.34	149.26			(a)
540	Connecticut avenue and I street nw. (southeast corner)			21							1		33.95	37.33			71.28
545	Columbia road nw., about 430 feet east of Brightwood avenue			21							1		34.22	34.50			68.72
513	Eighth and Taylor streets nw. (northeast and southeast corners)			66							2		74.81	91.07			165.88
520a	Eleventh street nw., between E and F streets					207				2		1	212.74	585.02		5.88	(a)
553	Eleventh and Clifton streets nw. (northwest corner)		33								1		31.71	57.93			89.64
504	First and Canal streets sw												260.24	196.87			b 457.11
507	First and Randolph streets nw. (northeast and southeast corners)			36		9					2		55.48	83.13			138.61
508	Flagler place nw., just south of V street			51		30				1	2		97.21	130.71	$41.27		269.19
510	First street nw., just north of Adams street			6							1		24.89	34.53	9.71		69.13
511	First and H streets se			39		117				1	2		156.19	201.57			357.76
519	F street nw., between Tenth and Eleventh streets			300						2			192.39	555.86			(a)
520	First and T streets nw. (southeast corner)				6						1		29.68	39.21			68.89
524	Fifteenth and C streets se. (northeast and northwest corners)			93							2		83.77	89.07			172.84
554	Fifteenth and Q streets nw. (southeast corner)													23.38			c 23.38
501	Irving and Fourteenth streets nw. (southwest corner)			45							1		46.15	64.23			(a)
526	Irving street nw., just east of Brightwood avenue			18							1		34.44	39.00			73.44
521	Kenyon street nw., 475 feet east of east curb, Brightwood avenue			27							1		35.92	46.45			82.37
534	Keating street nc., 390 feet east of east line Lincoln avenue			21							1		34.22	39.84			74.06
514a	Linwood place sw., crossing C and D streets					66				1			130.97	243.48	31.66		406.11
515	L street nw., between Sixteenth and Seventeenth streets			45							2		49.51	90.25	108.39		248.15
503	N street se., at New Jersey avenue and Second street		39	99							5		176.02	205.13			381.15
505	North Capitol and Fenton streets. (northeast corner)					24					1		43.48	43.83			(a)
512	North Capitol and Bryant streets. (northeast corner)			39							1		43.24	49.27			92.51
523	Nineteenth street and Kalorama road. (southeast corner)		39								1		36.55	55.02			(a)
528	Square 981		121									2	42.81	130.44	84.26		257.51
533	New Jersey avenue se., between M and N streets												165.75	98.74			d e 264.49

a Awaiting bill for repairs to pavements.
b 39 corner and 56 side concrete basin tops constructed.
c Work completed in fiscal year 1908.
d Constructing shed to be used in constructing concrete basin tops (in yard of sewage pumping station).
e 102 linear feet 6-inch sewer constructed

TABLE No. 5.—*Statement of work done by day labor under the appropriation for main and pipe sewers*—Continued.

No. of order.	Location.	Pipe sewers laid (length in feet.)							4-foot diameter.	Manholes built.	Basins built.	Branches.	Cost of materials.	Cost of labor.	Cost of repairs to pavements.	Cost of work by plumber.	Total cost.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.									
525	O street nw., between Twentieth and Twenty-first streets				114	216	51			3		12	$390.63	$852.52	$166.04	$34.69	$1,443.88
522	Park place nw., between Luray place and Park road			90							4		111.65	151.10			262.75
530	Q street nw., between Sixteenth and Seventeenth streets			93				72			1		161.85	267.27	54.56		483.68
535	Park and Manor place nw. (southwest corner)			24							1		35.61	36.75			72.36
537	Pennsylvania avenue, between Thirteenth and Fourteenth streets (crossing)												22.60	244.05	23.64		[a] 290.29
539	Pennsylvania avenue and Eighth street nw. (northwest corner)			12							1		30.38	32.48			[b]
543	Pennsylvania avenue nw., between Ninth and Thirteenth streets			294						2			185.85	625.39			[b]
551	Randolph street nw., 115 feet east of First street			21							1		23.42	29.19			52.61
502	Second and N streets se. (around sewage pumping station)	200	243	150							37		579.07	737.57			1,316.64
506	Sixth and N streets nw. (northwest corner)				15						1		26.07	36.44			62.51
517	Sixteenth street nw., between I and N streets			237							6		231.68	306.57			538.25
518	Seventeenth and L streets nw					36					6		145.92	190.25			[b]
527	Seventh and Taylor streets nw. (northwest and southwest corners)			36							2		67.30	91.28			158.58
532	Sixth and W streets nw			39				30		1	1		104.85	157.59	21.05		283.49
536	Sixth and Trumbull streets nw. (northwest corner)			6							1		26.70	36.92			63.62
538	South Carolina avenue se., between Sixth and Seventh streets			111									46.19	117.91			[b]
552	Seaton place nw., between First and North Capitol streets			36							2		39.58	70.46			[b]
500	Taylor and Washington streets. (Anacostia)			24							1		38.53	41.83			80.36
514	Twenty-fifth and N streets nw. (southwest corner)			9							1		27.67	32.92			60.59
541	Twelfth and B streets ne. (northeast corner)		9								1		20.64	24.19			44.83
542	Tenth and Pennsylvania avenue nw. (northwest corner)			24							1		27.62	36.42			[b]
544	Thirteenth street and Pennsylvania avenue nw							12					13.42	35.42			[b]
546	Twelfth place and B street ne. (northwest corner)			15							1		24.63	27.76			52.39
547	Thirteenth street ne., south of B street			9							1		21.23	17.41			38.64
550	Thirteenth street nw., crossing Pennsylvania avenue								121				266.60	705.35			[c] 971.95
509	V street and Vermont avenue nw. (southeast corner)	45									1		24.24	53.14			77.38
516	Vermont avenue nw., between Thomas circle and N street					96							67.20	143.81	30.26		241.27
	Total	245	484	2,280	135	801	51	114	121	13	108	15	5,061.22	8,648.14	570.84	46.07	10,652.23

[a] 102 linear feet 6-inch sewer constructed.

[b] Awaiting bill for repairs to pavements.

[c] Work completed in fiscal year 1908.

TABLE No. 6.—*Statement of work done by day labor under appropriation for suburban sewers.*

No. of order.	Location.	Pipe sewers laid (length in feet).			Manholes built.	Cost of materials.	Cost of labor.	Cost of repairs to pavements.	Total cost.
		12-inch.	15-inch.	24-inch.					
802	Cathedral avenue nw., between Connecticut avenue and Twenty-eighth street	51	.....	.....	1	$46.47	$121.80	$3.48	$171.75
801a	Park road from Brightwood avenue eastward	27	387	.....	2	256.37	483.68	62.44	802.49
800	Soldiers' Home grounds	.....	.....	.....	.....	7.95	35.18	.....	[a] 43.13
801	Third and Channing streets (intersection)	.....	.....	21	.....	90.05	104.61	.....	[b] 194.66
	Total	78	387	21	3	400.84	745.27	65.92	1,212.03

[a] Constructing approach to sewer.

[b] Also constructed 18 linear feet of arch of a 6-foot 6-inch diameter concrete sewer

TABLE NO. 7.—*Statement of work done by day labor under allotment for sewer division, charged appropriation "Elimination of grade crossings, District of Columbia."*

No. of order.	Location.	Pipe sewers laid (length in feet).							Manholes.		Basins.		Branches	Cost of materials.	Cost of labor.	Total cost.
		8-inch.	10-inch.	12-inch.	15-inch.	18-inch.	21-inch.	24-inch.	Built.	Rebuilt.	Built.	Rebuilt.				
406	C street sw., between Sixth and Ninth streets							756	2					1,093.11	$2,222.22	(a)
428	C street sw., between Seventh and Eighth streets													9.43	20.67	$30.10
405	D street sw., just west of Ninth street			21							1			31.42	40.37	71.79
415	D street and Linworth place sw. (intersection)					51	63		1					105.68	169.94	(a)
409	F street ne., near east wall terminal station														7.25	7.25
411	F street ne., between Second street and east wall terminal station													61.81	118.33	b 180.14
418	First and F streets se. (northwest corner)			15							1			27.80	19.91	47.71
419	First and F streets se. (northeast corner)			18							1			28.70	35.03	63.73
424	Fourth and T streets ne. (southeast corner)			6	42				1					45.28	131.13	176.41
431	Fourteenth and Water streets sw. (southwest corner)			51							1			44.73	54.50	(a)
435	Ivy street, 302 feet west of west curb of New Jersey avenue se													7.15	15.79	(a b)
403	Massachusetts avenue ne., between First and Second streets		42								1			39.43	57.53	96.96
416	Maryland avenue and Ninth street sw. (southwest corner)														1.50	c 1.50
423	Massachusetts avenue and E street ne. (southeast corner)	15										1		17.00	27.11	44.11
404	Ninth street sw., between Virginia and Maryland avenues		90								2			87.53	119.23	206.76
417	New Jersey avenue and E street se			75			60		1		2			161.05	215.41	(a)
430	Reservation 123 (southeast corner)			6								1		23.42	39.20	b 62.62
414	Rhode Island avenue and Seventh street ne				108			3			4			153.89	241.60	395.49
400	Square 721													3.01	4.59	d 7.60
413	Seventh street and Rhode Island avenue ne				51						2			68.36	109.41	177.77
420a	Seventh and D streets sw. (northwest corner)			21							1			28.46	34.81	63.27
421	Second street and South Carolina avenue se. (southeast corner)	18									1			21.99	29.19	51.18
422	Seventh street and Virginia avenue sw. (southwest corner)			24							1			30.88	51.55	82.43
425	Seventh and C streets sw. (southwest corner)		9								1			19.28	13.83	33.11
426	Seventh street and Virginia avenue sw. (southeast corner)			9							1			28.50	28.75	57.25
427	Second and E streets ne. (southwest and northwest corners)			48							2			45.61	76.75	122.36
432	Seventh and C streets sw. (northeast corner)			6							1			25.09	30.50	55.59
434	Seventh street sw., between C and D streets			149		165			3				1	289.73	613.71	(a)
401	Third street sw., between Virginia avenue and E street		60						1		2			86.53	117.45	203.98
402	T street ne., between Fourth and Fifth streets			84					2		4			172.30	220.14	392.44
408	Third and I streets ne													14.31	22.93	b 37.24
410	Third and I streets ne. (northwest and southwest corners)			24							2			55.11	52.62	107.73
412	Tenth and C streets sw. (southeast and southwest corners)			9								2		54.14	63.20	117.34
420	Thirteenth and D streets sw. (southeast corner)													2.01	7.33	e 9.34
429	Third street and Virginia avenue se. (northwest corner)			6							1			25.09	30.92	56.01
409	Virginia avenue and west roadway of Ninth street sw. (southeast corner)			48							1			43.77	70.87	114.64
	Total	33	201	620	201	216	123	759	11		33	4	1	2,951.60	5,115.27	3,073.85

a Awaiting bills for repairs to pavements. b Adjusting manholes. c Basins abandoned. d Work began in fiscal year 1906. e Manholes abandoned.

TABLE NO. 8.—*Statement of work done by day labor under miscellaneous appropriations.*

No. of order.	Location.	Pipe sewers laid (length in feet).								Manholes built.	Basins.			Cost of materials.	Cost of labor and contingencies.	Cost of repairs to pavements.	Total cost.	Appropriation.
		10-inch.	12-inch.	15-inch.	18-inch.	4 by 6 feet.	9 by 10½ feet.	8 feet diameter.	6 by 10½ feet.		Built.	Rebuilt.	Adjusted.					
1033	B street ne., just east of Twelfth street.	....	3	....	.....	.....	.....	.....	.....	.....	.....	1	...	$8.12	$21.52	.....	$29.64	Improvements and repairs, northeast section.
1000	Seventh street ne., between Maryland avenue and H street.	....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	1	30.26	74.47	.....	[a] 104.73	Do.
1002	Tenth and D streets ne. (southwest corner).	....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	2	5.46	12.37	.....	17.83	Do.
1032	Twelfth street ne., between B street and Park place.	....	12	....	.....	.....	.....	.....	.....	.....	.....	2	...	20.45	53.60	.....	74.05	Do.
1034	Tennessee avenue and Twelfth street ne., (northwest and southwest corners).	....	9	....	.....	.....	.....	.....	.....	.....	.....	2	...	18.56	74.63	.....	93.19	Do.
1014	Connecticut avenue and L street nw. (northwest corner).	....	6	....	.....	.....	.....	.....	.....	.....	.....	1	...	26.42	29.15	.....	55.57	Repairs to streets.
1009	Eighth and N streets nw. (northwest corner).	....	3	....	.....	.....	.....	.....	.....	.....	.....	1	...	25.63	33 77	.....	59.40	Do.
1003	Fifth street nw., between O and R streets.	....	15	....	.....	.....	.....	.....	.....	.....	2	.....	...	52.76	74.11	.....	126.87	Do.
1008	Fourteenth and S streets nw. (southwest corner).	....	3	....	.....	.....	.....	.....	.....	.....	.....	1	...	26.36	35.25	.....	61.61	Do.
1027	M street nw., between Twenty-fifth and Twenty-sixth streets.	....	15	....	.....	.....	.....	.....	.....	.....	3	.....	...	67.04	110.01	.....	177.05	Do.
1020	Ninth and H streets sw. (northeast corner).	....	9	....	.....	.....	.....	.....	.....	.....	1	.....	...	30.02	39.39	.....	69.41	Do.
1026	Pennsylvania avenue nw., between Sixth and Fifteenth streets.	24	126	12	.....	.....	.....	.....	.....	.....	12	....	4	311.81	502.09	.....	[b] 813.90	Do.
1007	Sixth and N streets nw. (southwest corner).	....	36	....	.....	.....	.....	.....	.....	.....	1	.....	...	32.03	43.87	.....	75.90	Do.
1010	Sixteenth street nw., between I and L streets.	....	12	9	15	.....	.....	.....	.....	.....	.....	10	...	181.68	329.03	.....	510.71	Do.
1028	Seventh street and Market space nw..	....	12	....	.....	.....	.....	.....	.....	.....	.....	1	...	20.17	30.93	.....	(c)	Do.
1005	Twenty-second street nw., between M and O streets.	....	90	....	.....	.....	.....	.....	.....	.....	7	...	3	173.13	249.63	.....	422.76	Do.
1011	Twelfth and P streets nw.....	....	12	....	.....	.....	.....	.....	.....	.....	.....	3	...	58.45	84.20	.....	142.65	Do.
1012	Twelfth and O streets nw. (southeast and southwest corners).	....	18	....	.....	.....	.....	.....	.....	.....	.....	2	...	42.95	50.86	.....	93.81	Do.
1013	Twelfth street and Rhode Island avenue nw. (southwest corner).	....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	...	.....	1.90	.....	[d] 1.90	Do.

[a] Work begun in the fiscal year 1906. [b] Work completed in fiscal year 1908. [c] Awaiting bills for repairs to pavements. [d] Basin abandoned.

TABLE No. 8.—*Statement of work done by day labor under miscellaneous appropriations*—Continued.

No. of order.	Location.	Pipe sewers laid (length in feet). 10-inch.	12-inch.	15-inch.	18-inch.	4 by 6 feet.	9 by 10½ feet.	8 feet diameter.	6 by 10½ feet.	Manholes built.	Basins. Built.	Rebuilt.	Adjusted.	Cost of materials.	Cost of labor and contingencies.	Cost of repairs to pavements.	Total cost.	Appropriation.
1019	Thirteenth street and New York avenue, and New York avenue between H and Thirteenth streets nw.	....	21	....	.....	.....	.....	.....	.....	.....	2	.....	.....	$54.33	$77.83	.....	$132.16	Repairs to streets.
1021	Connecticut avenue nw., between Ordway and Porter streets.	....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	146.23	305.36	.....	451.59	Repairs to roads.
1029	Twenty-third street se., between Minnesota avenue and Naylor road.	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.01	8.39	.....	12.40	Do.
1022	Canal wall, between G and L streets	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23.10	.....	[a] 23.10	"Unused balances."
1015	First and L streets sw	....	.....	.....	.....	64	.....	.....	.....	.....	.....	.....	.....	551.62	3,494.84	.....	[b]	Do.
1035	Water street sw., intersection Seventh and L streets.	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	229.11	419.14	.....	[b c d]	Do.
1025	Connecticut avenue between Kalorama road and Calvert street.	....	621	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	334.15	1,025.81	.....	[b]	Connecticut Avenue Bridge.
1004	Delaware avenue ne., between B and C streets.	....	.....	.....	195	.....	.....	.....	.....	2	.....	.....	.....	264.84	463.95	$14.71	743.50	Deposit to be made by superintendent U. S. Capitol.
1006	E street nw. between Thirteenth and Fourteenth streets.	....	.....	.....	111	.....	.....	.....	.....	1	.....	.....	.....	98.50	140.66	57.88	297.04	Public convenience stations.
1017	Fourth and E streets nw. (southwest corner).	....	9	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	28.83	35.37	.....	64.20	Sidewalks and curbs.
1018	R street nw., between Eighth and Ninth streets.	....	15	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	54.57	69.15	.....	123.72	Do.
1023	First and L streets sw	....	.....	.....	.....	109	28	158	.....	.....	.....	.....	.....	5,233.67	9,443.88	.....	[b]	Water and L streets intercepting sewer.
1036	Water and L streets sw. (Stephenson wharf).	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18.99	.....	[c e] 18.99	Do.
1001	L and Water streets sw	....	.....	.....	.....	.....	.....	.....	41.5	.....	.....	.....	.....	3,528.74	3,918.70	.....	[f b g]	Four-and-a-half street intercepting sewer.
1024	Twenty-third street nw., between F and G streets.	....	6	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	28.28	51.30	.....	79.58	Improvements and repairs northwest section.
1031	Thirteenth street and Park road nw	....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	24.40	30.88	.....	55.28	Improvements and repairs Thirteenth street.
	Total	24	1,053	21	321	173	28	158	41.5	8	33	24	10	11,712.58	21,378.13	72.59	4,932.54	

[a] Removing stone from canal wall.
[b] Awaiting bills for repairs to pavement.
[c] Work completed in fiscal year 1908.
[d] Restoring conditions at Stephenson's wharf.
[e] Knocking out bulkhead in sewer.
[f] Work begun in fiscal year 1906
[g] 68 linear feet tide gate chamber constructed.

TABLE NO. 9.—*Average cost of materials and labor, per linear foot of pipe sewers, constructed by day labor; also average cost of basins.*

[In this table it is assumed that the cost of materials used in basin connections is the same as that in the same size sewer. It is also assumed that on account of the difference in the depth of excavation the cost of labor is half the cost of that of the same size sewer. This table does not embrace the cost of work of exceptionally difficult construction.]

Size of sewer.	Length.	Cost of materials.	Cost of labor.	Total cost.
	Feet.	*Linear foot.*	*Linear foot.*	*Linear foot.*
8-inch	871	$0.43 +	$1.425+	$1.855
10-inch	6,292	485−	1.432+	1.917
12-inch	18,967	.561+	1.305+	1.866
15-inch	4,111	.695−	1.464+	2.159
18-inch	3,657	.846−	1.819+	2.665
21-inch	618	.979+	2.09 +	3.069
24-inch	75	1.257+	2.784+	4.041
8-inch connection	245	.43	.713	1.143
10-inch connection	531	.485	.716	1.201
12-inch connection	2,295	.561	.653	1.214
15-inch connection	33	.695	.732	1.427
18-inch connection	216	.846	.91	1.756
24-inch connection	102	1.257	1.392	2.649
Catch-basins	130	15.668	26.287	41.955

TABLE NO. 10.—*Number of inspectors and other employees of the sewer division and disbursing office temporarily employed, and the appropriations from which paid, for the fiscal year ending June 30, 1907.*

[This table includes the cost of wagons, teams, and carts.]

Appropriations.	Amounts expended for—		
	18 inspectors.	428 laborers.	52 teams.
Unused balances	$186.00	$23,719.21	$1,525.07
Outfall sewer and siphon	4,092.00	2,070.47	143.00
Water and L street intercepting sewer	324.00	8,204.91	1,050.42
Sewerage pumping station	1,787.00	2,803.12	172.75
Arizona avenue sewer	824.00	24.16	6.13
Four-and-a-half street high-level intercepting sewer	188.00	3,078.68	719.28
Assessment and permit work	760.00	34,431.20	10,267.07
Operation and maintenance		15,002.86	89.75
Improvements and repairs, northeast section		140.46	64.26
Cleaning and repairing sewers and basins		21,983.73	2,981.74
Emergency fund		.87	
Sidewalks and curbs		52.87	34.37
Suburban sewers	1,246.50	633.94	203.49
Main and pipe sewers	1,030.50	7,187.18	1,870.85
Improvements and repairs, northwest section		31.34	14.50
Elimination of grade crossings		3,393.50	1,047.78
Connecticut avenue bridge		697.05	229.00
Repairs to streets		844.62	412.60
B street and New Jersey avenue trunk, section B		22.50	
B street and New Jersey avenue trunk, section C	180.00		
B street and New Jersey avenue trunk, section D	105.75	58.00	
B street and New Jersey avenue trunk, section F	335.50		24.75
Miscellaneous trust fund deposits	1,108.00	3,763.65	722.35
Repairs to county roads		5.30	2.50
Public-convenience stations		92.11	41.88
Repairs to roads		227.53	47.76
Improvements and repairs, Thirteenth street		18.25	7.50
East side intercepting sewer (Brookland)		54.00	
Falls Branch sewer	752.00		

WASHINGTON, *July 12, 1907.*

SIR: I have the honor to submit the following statement of the length of conduits laid during the fiscal year ending June 30, 1907, together with a summary of the conduits built to June 30, 1907.

Very respectfully,

J. ELLIOT ROSS,
Inspector, Sewer Division.

Mr. D. E. MCCOMB,
Superintendent of Sewers.

TABLE No. 11.—*Amount of conduits laid from July 1, 1906, to June 30, 1907.*

Duct.	Potomac Electric Power Co.		Chesapeake and Potomac Telephone Co.		Western Union Telegraph Co.		Capital Traction Co.		Total.	
Number.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.
	Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
1	817	817	10,251	10,251					11,068	11,068
2			26,953	53,906					26,953	53,906
3			3,886	11,658	196	588			4,082	12,246
4	22,524	90,096	6,298	25,192			4,753	19,012	33,575	134,300
5										
6			20,745	124,470	187	1,122			20,932	125,592
8	6,421	51,368	6,921	55,368					13,342	106,736
10			56	560					56	560
12	6,940	83,280							6,940	83,280
16	486	7,776							486	7,776
20	464	9,280					532	10,640	996	19,920
24	276	6,624							276	6,624
28	125	3,500							125	3,500
Total	38,053	252,741	75,110	281,405	383	1,710	5,285	29,652	118,831	565,508

Manholes:

Potomac Electric Power Co	539
Chesapeake and Potomac Telephone Co	209
Capital Traction Co	17
Total	765

Hand-holes:

Potomac Electric Power Co	51

Summary of conduits laid to June 30, 1907.

Duct.	United States Electric Lighting Co.		Chesapeake and Potomac Telephone Co.		Potomac Electric Power Co.		Brightwood Railway Co.		Anacostia and Potomac River Railway Co.	
No.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.
	Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
1	26,177	26,177	26,347	26,347	2,711	2,711				
2	128,223	256,446	135,866	271,732	2,155	4,310	13	26		
3	236	708	5,152	15,456						
4	88,296	353,184	112,485	449,940	96,480	385,920			176	704
6	35,461	212,766	73,923	443,538						
8	11,818	94,544	43,816	350,528	38,926	311,408	176	1,408	159	1,272
9			114	1,026	7,288	65,592				
10	88	880	10,731	107,310					245	2,450
12	1,491	17,892	8,216	98,592	6,940	83,280				
13			212	2,756						
14	1,224	17,136	1,400	19,600						
15	68	1,020								
16	2,793	44,688	6,604	105,664	486	7,776				
17			636	10,812						
18			1,576	28,368						
20			1,407	28,140	464	9,280				
22			823	18,106						
24	2,435	58,440	2,072	49,728	276	6,624				
25			304	7,600						
28	2,049	57,372			125	3,500				
30	53	1,590	313	9,390						
32			985	15,520						
36	3,854	138,744	26	936						
40			1,589	63,560						
44					424	18,656				
56			749	41,944						
58					7	406				
64	106	6,784	176	11,264						
72			118	8,496						
82			35	2,870						
Total	304,372	1,288,371	435,175	2,189,223	156,282	899,463	189	1,434	580	4,426

Summary of conduits laid to June 30, 1907—Continued.

Duct.	Capital Traction Co.		Metropolitan Railway Co.		City and Suburban Railway Co.		Private.		Washington Railway and Electric Co.	
No.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.
	Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
1							40	40		
2	15,742	31,484					312	624		
4	13,473	53,892	21,661	86,644	11,040	44,160				
6	7,320	43,920			5,117	30,702				
7	29	203					73	511		
8	2,761	22,088			13,248	105,984			4,670	37,360
10					8,030	80,300				
12			11,381	136,572	77	924				
14	4,257	59,598			1,880	26,320				
18					2,214	39,852				
22	9,109	200,398			134	2,948				
26	280	7,280								
28					87	2,436				
38					193	7,334				
Total...	52,971	418,863	33,042	223,216	42,020	340,960	425	1,175	4,670	37,360

Duct.	Postal Telegraph and Cable Co.		United States Government.		Western Union Telegraph Co.		Great Falls and Old Dominion Railway.		Total.	
No.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.	Conduit.	Duct.
	Feet.	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*	*Feet.*
1	13,236	13,236	40	40	35	35			68,586	68,586
2					1,076	2,152	42	84	283,429	566,858
3					1,703	5,109			7,091	21,273
4	1,427	5,708	1,357	5,428	6,336	25,344			352,731	1,410,924
5					434	2,170			434	2,170
6					898	5,388			122,719	736,314
7									102	714
8									115,574	924,592
9									7,402	66,618
10					183	1,830			19,277	192,770
12									28,105	337,260
13					309	4,017			521	6,773
14									8,761	122,654
15					44	660			112	1,680
16									9,883	158,128
17									636	10,812
18									3,790	68,220
20									1,871	37,420
22									10,066	221,452
24									4,783	114,792
25									304	7,600
26									280	7,280
28									2,261	63,308
30									366	10,980
32									485	15,520
36									3,880	139,680
38									193	7,334
40									1,589	63,560
44									424	18,656
56									749	41,944
58									7	406
64									282	18,048
72									118	8,496
82									35	2,870
Total...	14,663	18,944	1,397	5,468	11,018	46,705	42	84	1,056,846	5,475,692

WASHINGTON, *August 23, 1907.*

Mr. D. E. McCOMB,
Superintendent of Sewers, District of Columbia.

SIR: I have the honor to submit the following tabulated statement of the conduits and gas mains laid during the fiscal year ending June 30, 1907, together with a summary of the conduits built to June 30, 1907.

Very respectfully,

J. ELLIOT ROSS,
Inspector, Sewer Division.

TABLE 12.—*Summary of gas mains laid from July 1, 1906, to June 30, 1907.*

	1¼-inch.	4-inch.	6-inch.	12-inch.
	Feet.	*Feet.*	*Feet.*	*Feet.*
Georgetown Gas Co	3,120	5,330	.....	.....
Washington Gas Co	.....	5,377	25,863	5,365
Total	3,120	10,707	25,863	5,365

REPORT OF THE INSPECTOR OF BUILDINGS.

WASHINGTON, *July 26, 1907.*

SIR: I have the honor to submit herewith the annual report covering the transactions of the building department for the fiscal year ending June 30, 1907, together with recommendations for the fiscal year ending June 30, 1909.

Statement of permits issued from June 30, 1906, to July 1, 1907.

	Number.	Value.		Number.	Value.
Brick additions and repairs	1,492	$1,121,969	Heating apparatus	38	$25,270
Frame additions and repairs	634	83,966	Bake oven	4	1,900
Brick dwellings	661	4,259,884	Stables (brick)	58	110,350
Frame or third class dwellings	548	1,563,780	Stables (frame)	15	8,695
Concrete dwellings	11	24,800	Clubhouse (brick)	1	100,000
Apartment houses	26	760,500	Carriage house (brick)	3	28,500
Store and dwelling (brick)	30	186,350	Factory (brick)	2	11,000
Hotel	3	247,900	Gasoline engine	9	2,421
Stores (brick)	73	214,220	Store and office (brick)	1	12,000
Stores (frame)	1	400	Warehouse (frame)	3	7,500
Store and assembly hall	1	40,000	Abattoir (frame)	1	1,000
Garage	3	47,500	Waiting station (frame)	1	300
Garage and stable	4	5,800	Theater	1	130,000
Foundry	1	4,000	Factory (frame)	1	1,300
Office building (brick)	12	1,139,000	Power house, express bldg., etc.	3	600,000
Office building (frame)	3	5,500	Store and dwelling (frame)	1	1,885
Sheds (iron)	8	1,570	Pump house	1	3,000
Stable and warehouse (brick)	2	50,500	Water tower	2	3,200
Machinery	.....	144,275	Sheds (brick)	16	10,085
Blacksmith shop (brick)	4	9,250	Sheds (frame)	795	38,150
School (brick)	3	50,500	Temple (brick)	1	344,000
Engine and boiler	29	40,125	Gas holder (iron)	1	50,000
Warehouse (brick)	12	162,700			
Power station or house	5	85,677	Total	4,895	12,679,122
Roundhouse	2	400,000	Minor repairs	4,420	44,200
Laboratory	1	75,946	Signs	403	4,030
Workshop (brick)	6	13,325	Awnings	144	10,720
Church	8	120,100	Fire escapes	32	6,400
Workshop (frame)	1	200			
Dancing pavilion	1	58	Total	9,894	12,714,472
Laundry (frame)	1	1,200	District of Columbia government buildings	6	451,694
Greenhouse (brick)	5	6,000			
Greenhouse (frame)	2	350	Grand total	9,900	13,166,166
Elevators	107	249,700			
Motors	237	40,781			

Comparative statement for the years 1906 and 1907.

	New buildings.	Repairs.	Dwellings.	Apartments.	Business buildings.
1907	1,684	2,484	1,251	26	177
1906	1,774	1,883	1,434	53	287
	a 90	601	a 183	a 27	a 110

a Decrease.

Valuation of building operations not including Government work:	
1907	$12,714,472
1906	11,789,201
Increase	925,271
Permits issued, including buildings, repairs, minor repairs, awnings, engines, boilers, motors, signs, heating apparatus, etc.:	
1907	9,862
1906	8,208
Increase	1,654

Projections beyond the building line applied for, 1,186.

The following summary will show the distribution of improvements in the different sections of the District and the value of the same:

Section.	Buildings.	Repairs.
Northwest	$4,514,303	$932,389
County	4,422,664	176,758
Northeast	1,406,527	61,389
Southeast	719,285	55,118
Southwest	312,910	47,779
Total	11,375,689	1,273,433

Estimated number of buildings in the District of Columbia.

	Brick buildings.	Frame buildings.
1906	49,285	21,691
Erected in 1907	1,047	577
Total	50,332	22,268

Municipal buildings erected under the supervision of this office exclusive of the cost of site:	
Anthony Hyde School, O street, between Thirty-second and Thirty-third northwest	$43,470
F. L. Cardozo, I street, between Half and I southwest	42,600
Police court, Sixth and D streets northwest	72,579
Home for the Aged and Infirm, Bellevue and Blue Plains	119,850
Industrial Home School, Bellevue and Blue Plains	73,500
Workhouse, Washington Asylum grounds	99,695
Total	451,694
Receipts of the office for the past year:	
For building permits and repairs	5,879
For projections	1,186
For engines, boilers, heating apparatus, motors, etc	472
For awnings	144
For signs	403
Total	8,084
Total for 1906	8,042
Increase	42

Description and cubic cost of municipal buildings.

Name and location.	Cost.	Cubical contents.	Cost per cubic foot.	Description.	Architect.
		Feet.	*Cents.*		
Anthony Hyde School, O, between Thirty-second and Thirty-third streets.	$43,470	347,683	12.5	8-room brick.....	A. B. Heaton.
F. L. Cardozo School, I, between Half and First southwest.	42,600	357,623	11.9	.....do.....	Marsh & Peter.
Police court, Sixth and D streets northwest.	72,579	463,511	15.6	Brick and terra cotta; not fireproof.	B. S. Simmons.
Home for Aged and Infirm, Bellevue and Blue Plains.	119,850	921,696	13	Brick.....	G. O. Totten.
Industrial Home School, Bellevue and Blue Plains.	73,500	428,937	17.1	.....do.....	J. L. Smithmeyer.
Workhouse, Washington Asylum.	99,695	382,572	26	Fireproof.....	Inspector of Buildings.

OTHER BUILDINGS AND WORK REPORTED.

The other buildings are in the following state of construction or preparation: Ketcham School, No. 149, 70 per cent completed; Brightwood School, No. 151, 30 per cent completed; Deanwood School, No. 152, 20 per cent completed; chemical engine house, Bennings, 70 per cent completed; crematorium, reservation No. 13, 35 per cent completed; cell work at workhouse is completed.

During the year the stable for the street-cleaning department was repaired, including an entirely new roof. The Abbott School building was reconstructed and thoroughly repaired. Extensive work was done at the Wallach School to strengthen floors, and improvements made at the Central High School. The other repair work on school buildings is given in detail in the report of the superintendent of repairs.

I have not been able to make a contract for the stable and wagon shed at the morgue on account of the insufficiency of the appropriation, which will not admit of repairing the wharf prior to the construction of the building.

I have not yet received notice of the selection of a site for the colored school in Brookland, and would recommend that the present appropriation be made available for two rooms instead of four, to be placed on the site now belonging to the District, and to be used for either a colored school or white school, in the discretion of the school board.

The plans of McKinley School will be completed in August, and the plans for the 8-room school to relieve the McCormick will also be completed early in August. The plans for the engine house at Lanier Heights were completed in July, and the plans for the cement house will be completed in September. The plans for the Eastern Market will be ready in December, and the buildings for the bathing beach were contracted for in May to be completed by the 1st of July, but were not completed for a month later. The site for the school building near Howard University has not been obtained, and these plans will be made during the coming winter. The plans for the 16-room school on Washington Heights are now being prepared; also, the plans for the 12-room school near Lincoln Park. The plans for the Langdon School will be completed in September.

The construction of the addition to the Petworth School has been advertised for bids. The 4-room addition to the Gage School will be started early in the spring. The plans for the addition to the Emery School have been completed and will be advertised during the winter. The engine house in Langdon will be started in October. The site for the truck house southwest has not been determined upon. The plans for the administration building at the workhouse should be completed in November. The stable at the Industrial Home School is nearly completed.

ASSISTANT INSPECTORS.

I would respectfully invite attention to the fact that during the year about 5,000 buildings have been erected or altered under permit, and that the 9 assistant inspectors have made 63,090 visits to these buildings, or about 12 visits to each piece of work. Notwithstanding that this is more than 20 inspections a day for each man, it will be seen that the number of visits to each building is insufficient to keep in close touch with the work or give it anything like a supervisory care. Yet even 20 inspections are too

many for one man to make each day. It therefore appears that the present force is inadequate, and to give the service which seems to be expected it should be so increased that each building could be visited at least 24 times instead of 12, and that each man should make 10 thorough daily inspections instead of 20 hasty and unsatisfactory calls at each piece of work. I beg of you to remember that, besides the time consumed in inspections, these men must have some time to submit their reports, write up their notices, and receive their orders. They submit to me a total of 180 reports each day. I believe that I can safely say, after comparison with similar duties in other cities, that our men cover more ground and do more work for less pay and with no means of transportation furnished.

I trust it may be made clear that with the present force we can not thoroughly comply with requirements and perform a perfect service. At least 100 serious accidents have been avoided through their efforts and several hundred violations of regulations have been discovered, and in nearly 50 cases the offenders punished. But with only 9 men I can not hope to prevent all accidents when several weeks must elapse between visits to buildings. The efficiency of the service would be on the safe side if we had 18 inspectors instead of 9. Having shown the amount of arduous daily work of each inspector and the responsible character of his work, I would earnestly recommend an increase in the salaries of inspectors. Please remember that these men share the dangers of a fireman and take similar risks tenfold oftener than he does, besides being held responsible for accidents. They are also the heads and sole support of families, and, not like some of the school-teachers, only one contributing member of the family. I can not afford to give the inspectors more than fourteen days' leave in a year, while other branches get twenty and thirty days and the teachers three months. In considering the estimate I hope they will be remembered.

One man, a temporary inspector, is employed and needed for house numbering and minor matters, such as dangerous cellar doors, defective downspouts, improper use of frame sheds, signs, awnings, and numerous complaints.

INSPECTORS OF ELEVATORS AND FIRE ESCAPES.

Two inspectors are detailed on elevators and fire escapes and their report shows the enormous amount of work necessary to keep up to the requirements and at the same time assist in the inspection of engines, boilers, gasoline tanks, heating apparatus, besides inspection of hotels, theaters, halls, churches, and all buildings used for purposes requiring licenses where public safety is concerned. If an accident occurs on an elevator the inspector will, with seeming excuse, point to the numerous special duties not connected with elevators which take his time from legitimate work, the principal digression being this year 611 inspections of heating apparatus, motors, gasoline tanks, theaters, hotels, etc. This year the new law relating to fire escapes would require the entire time of these inspectors, as it virtually means a house-to-house inspection of all buildings but private residences, which means that about one-sixth of all the 70,000 buildings, or nearly 12,000, must be examined to ascertain whether they come within the law. But as these inspectors have nearly 600 elevators to look after, this fire-escape work must be done by some other inspectors, as no provision was made in the law for extra help.

FIRE-ESCAPE LAW.

A temporary inspector has been employed under the appropriation for that purpose and assigned to the inspection of hotels and theaters, in order to carry out the fire-escape law as far as such buildings are concerned. But this has seriously interfered with the regular inspection work, as two other inspectors are also paid from this appropriation, and required to inspect the construction of school buildings where the appropriation was not sufficient for such purposes. This small appropriation will be exhausted in October and after that time it will be impossible to inspect the apartment houses and other buildings which come within the fire-escape law. I would earnestly recommend that some inspectors, at least three, be employed or provided for under a special appropriation for enforcing the fire-escape law. At the present rate with only one man for such work it will take about four years or more to cover the buildings within the scope of the law.

INSPECTION OF HEATING APPARATUS.

There should be some one expert in heating apparatus to take the work off t
elevator inspectors. The board of underwriters have strongly recommended :h
appointment, which should save many houses from fire and prevent l

Besides such duties, he would save his salary to the District in supervising the installation of heating and ventilating apparatus in 150 schools and 50 other buildings of the city government. I would invite attention to the method approved by Congress for supervising this class of work on Government buildings, or at present the Capitol building.

In order not to increase the appropriation for this department to a noticeable extent and restrict my recommendations to the lowest workable basis, I would say that the most urgent help and the most important position needed is that of a heating and sanitary engineer. The District now has over 200 buildings connected with the city government, which contain expensive heating and ventilating plants, which should have the supervision of such an official. During the past year I have been compelled to employ engineers for such work on a percentage basis, and the combined cost on the buildings would pay a good salary and give us the undivided and continual services of an expert on this very important branch of the work. In most every case where complicated heating and ventilation plants have been installed I have been compelled to modify them to suit the conditions under which they are used and the manner of handling them. An engineer who has not made a study of the heating plants for schools can not design a school plant that will give satisfactory service, and consequently I have modified the work at a greater cost than it would have required if properly designed and installed in the first place. Besides, the superintendent of repairs is in daily need of such advice in repairing and maintaining the heating and ventilating apparatus of the schools, hospitals, police stations, engine houses, industrial schools, reformatories, etc., which come under his care. Several years ago the need of such an expert was recognized by the introduction of a bill in Congress to pay an engineer $3,000 per annum to look after the design of such plants, but the services of such a man are needed constantly, not only to see that the plants are properly designed, but that they are properly installed and maintained. I know that no well-regulated corporation or business concern would for an instant think of intrusting a million dollars' worth of machinery to unskilled and inexperienced employees, and the present employees could not give the necessary time from present duties, even if they were experienced or qualified to care for the heating and ventilation of our city government buildings.

CHANGE IN OFFICE FORCE AND INCREASE IN SALARY.

During the last three years this office has lost the services of one-third of its inspection force by requests from Federal and local departments for their services through assignment or furlough. By inducements of higher salaries for the same class of work as they rendered in this office we have been compelled to relinquish men for services in other departments and private work. I would earnestly recommend that the salaries of two of the inspectors be raised to $1,400 as an inducement to remain in the District service, and some means of promotion in case of satisfactory records.

INSPECTION OF THEATERS AND HALLS.

The records and reports of this office show that every year before the opening of the theaters, and again when the licenses are applied for in October, a thorough inspection and report are made of the condition of all theaters, halls, and places of amusement, and such buildings in this city have always been kept within the regulations, and while several of the buildings are older than the regulations, they conform as nearly as possible without rebuilding. We have now four fireproof theaters, but the other older buildings, with one exception, are more safely provided with ample exits than will be found in any other city. The seats in one of the theaters are uncomfortably and unsafely close. In another the stairways from the balcony discharge the balcony patrons at right angles to the audience from the main floor; otherwise, the exits are excellent.

VENTILATION OF THEATERS.

There is a very important matter which seems to have been overlooked, and that is that the theaters are inadequately provided with means of ventilation or supply of fresh air at proper temperatures.

ARCHITECTS' AND BUILDERS' LICENSES.

I beg to renew my recommendations of last year, which are in keeping with the expressed opinion of the former inspector of buildings, that some board or committee, similar to the Medical Examiners or Bar Association, should be constituted to pass *on the qualifications* of persons claiming to be architects or builders, and limiting or

restricting the responsibility of this character of work to architects or builders of established reputation or evident qualifications. There are in this city at least 100 good builders the equal of any in the country, and at least 50 architects better than the average found in other cities, while, on the other hand, there are only a very few builders and architects who should not, in my opinion, be allowed to work on their own responsibility, and who would do the kind of work that would jeopardize life and limb. I do not think that such a law would result in limiting competition where such a great number of competent architects and builders are concerned, and the very few who would be shut out by such a law could, no doubt, find employment in work of a minor character, commonly called jobbing work, that would not affect the safety of the structures or risk the lives of the public.

I find that in other cities the necessity for such a law is becoming recognized, and since the disastrous conflagration in San Francisco greater care is used by the authorities in preventing incompetent builders and architects in engaging in work. Chicago has had such provisions, and now, after frequent collapses in the city of New York, the commissioner of buildings publicly advocated the passage of a similar law to license builders and to restrict work to responsible parties. Besides the dangers involved during the past year, several irresponsible builders have either abandoned their work or left it in an unfinished condition, or incorporated such shoddy material that the buildings proved a financial loss to the owners and those investing their money. With the lien laws in the present shape there should be some protection for the owner and some way to compel a builder to correct improper work at any time it may be discovered. I attended very carefully the hearings on this subject before the Board of Commissioners, and can not recall a single argument in opposition to the adoption of some fair and reasonable law to make the builders responsible and to make the risk of doing dishonest or shoddy work too great and punishment too certain. Most of the accidents happen during the construction of the building, and the defects are made manifest at the sacrifice of some of the workmen, or such defects are discovered by some of the inspectors before the work is complete. But a licensed builder would not take such chances either of killing his men or having his work condemned and himself put out of business. Note the conditions which follow each fatal accident: The authorities are most earnest and active to "discover" who the responsible parties are. This should be known before the accident, and they are not so likely to happen.

ELEVATORS.

I beg to invite attention to the annexed reports of the inspectors of elevators, which show that notwithstanding the inroads on their time for miscellaneous inspections they made 2,070 inspections, including Government buildings when requested, or about on an average of eight inspections each working day for the two inspectors. But three serious accidents have occurred, and these were not the result of breakage in the machinery or hoisting apparatus. Carelessness in operation and neglect in the maintenance will not be corrected until the engineers and operators are under official control or licensed, as recommended by the elevator inspectors. The cleanliness of the machines and proper lubrications of them and the hoisting cables are the safeguards of life and limb and saving of money. The regulations require daily inspections by the engineer or operator; but under present conditions I can not enforce general compliance. The committee for review of the regulations have under consideration the revision of the elevator regulations; but on account of the danger in the use of freight compartments attached to passenger elevators the inspector of buildings, with the advice of the engineering committee, has forwarded recommendations to amend the regulations in this respect at once.

REVIEW OF REGULATIONS.

The committee appointed by the Commissioners to review the regulations has not held any meeting during July and August, but the inspector of buildings has collected data and forwarded suggestions to the several committees. Meetings will be resumed in September, and final reports are expected before the 1st of January, 1908. On account of the continuous interruption of about 50 interviews each day the inspector of buildings will devote his entire time during October and November to collecting and formulating the reports and proposed amendments. The task being almost as arduous as the preparation of a technical handbook, deliberation is necessary to avoid changes in the near future.

The committee has had nine meetings, and has adopted rules of procedure and appointed subcommittees to take up the regulations section by section by assignment to the appropriate committee. They will also take up the elevator regulations and

the amendments on concrete and steel suggested in last year's report. The regulation relating to light and ventilation has received much consideration, and another committee has a report to make on the administration and improvements in this office and best methods of transaction of business to facilitate work and save time.

HEIGHT OF BUILDINGS.

I beg to call attention to the practical results of the amendments made year before last to the law relating to the height of buildings. The law as originally drafted placed the limit of height on residence streets for fireproof buildings at 90 feet, but Congress reduced the height to 80 feet for fireproof buildings and left the height for combustible buildings at 60 feet. The former height will not allow more than 7 stories in fireproof construction, while the latter height will admit of 5 stories in combustible construction. Consequently a type of building has resulted consisting of brick outer walls only with an enormous floor area subdivided by stud and lath partitions only and no interior walls. I would, therefore, recommend that Congress be petitioned to allow 93 feet for fireproof buildings on residence streets or reduce the height of combustible buildings to 50 feet.

ESTIMATES FOR DISTRICT BUILDINGS.

I beg to strongly advise against the practice which has sprung up in recent years in some of the departments in making their own estimates for cost of buildings, instead of setting forth the needs and description of the buildings in detail and leaving the cost to be determined by this department after proper consideration of all circumstances. It has resulted in lowering the standard of work during the past year and enforcing a reduction in the size and character of some of the buildings to keep within the appropriations. In most cases the departments make known their wants after the amount is fixed. It seems only necessary to invite attention to the manner of appropriating for our school buildings. The appropriation is given as $60,000 for an 8-room building and site. This appropriation is not available until the July following, and by the time the site is acquired and plans for the building finished we are in the winter weather; and the worst feature of the combined appropriation for "building and site" is that on the banks of the canal or remote sections of the city a site may be had for a few thousand dollars, while in the built-up and improved part of the city a much too small site will take one-third of the entire appropriation. The result is that the remote and squalid section of the city gets a fine building and fair size site, while the improved section must be content with a brick factory-looking building on a smaller site. I would recommend that all requests for sites be pooled, and a lump sum asked to acquire all the sites one year in advance of the appropriation for the buildings, and that all sites be advertised for or acquired at one time. In this way real-estate brokers and others would not be able to ascertain what proportion of the lump appropriation would be allowed for the several sites. As it is now, they always leave an insufficient amount for the buildings. The site might be easily enlarged after the building is up, but the character and design of the buildings can not be changed without great expense.

INCREASE IN APPROPRIATIONS.

I would also invite attention to the increased cost of the buildings in late years. Our buildings are not of fireproof construction and cost about one-half the amount of the Boston schools. Our 8-class-room schools, with 4 basement rooms, making 12 rooms in all, are now estimated to cost $50,000, and I believe they could be fireproofed up to the ceiling or roof for $70,000. The 8-room school is the most compact in plan and economical in operation of any building yet designed. A 16-room school will cost more than twice as much to build and will cost more proportionately to heat and repair. If such buildings are desired, they will cost $150,000, and we will probably be compelled to resort to 3-story buildings to get in assembly halls. I regret to say that the appropriations for the 12 and 16 room schools in the 1908 act will not admit of fireproof construction, and as so much has been expended for sites, the building must be as plain as possible.

PARTIAL APPROPRIATIONS.

For the last three years appropriations have been made in part for buildings, but contracts authorized for more than appropriated.

The school board in its report to the board of trade called attention to a seeming delay in completing the buildings when it would appear possible to start the work sooner. I beg to remind you that all buildings erected under such appropriations were started and constructed with such rapidity that the work outran the appropriation and caused delinquency in the payments to the contractors and resulting delay. Furthermore, the preparation of plans before the selection and acquisition of sites invariably results in disadvantageous changes after the contracts are made, in order to suit unlooked-for requirements of grades, exposures, surroundings, condition of foundations, sewer and water facilities, and numerous other problems that should be studied and varied with each and every plan. It would be a lasting benefit to take more time on plans and buildings, as better rates can be made when fewer buildings are put out at one time, as the same contractors bid constantly on District work and there is very little discretion allowed by law in obtaining and awarding contracts for District work.

PARTY WALLS AND PROJECTIONS IN THE COUNTY.

I regret to say that a practice of building rows of houses instead of detached buildings in the suburbs makes it necessary to consider the question of the party wall outside of the city. There is little doubt that such walls are economical of money and space, but such walls never have been and can not be located by this office as in the city, as the right to extend half the thickness of the wall on the neighbor's lot has never been settled by the courts or the corporation counsel.

A question upon which the office needs the assistance of the surveyor's office is in determining the proper application of the regulations with respect to projections of bays, etc., on private parking space between the street lines and recorded building line. I have been advised by the corporation counsel that the regulations do not apply to projections unless the building restriction line was shown on the plat of subdivision at the time it was submitted to and signed by the Commissioners before having been placed on the surveyor's books, and I would respectfully recommend that the surveyor state on each plat issued for building purposes whether such a line was shown when application was made to and approved by the Commissioners.

RECOMMENDATIONS TO DEFINE THE DUTIES AND PLACE THE RESPONSIBILITY OF SEPARATE OFFICES.

I beg to call attention to several laws and regulations relating to public safety. Such laws necessarily require the unbiased and individual action of the officers named, and when the duties cover the same work the opinions may differ, which results in a deadlock or indefinite delay, and sometimes in conflicting orders from the several departments. I have in past reports requested that the duties or assignments be so defined that there will be no overlapping or duplication of work and that responsibility may be undivided and directly placed. With this object in view I submitted nearly three years ago a draft of amendment to the fire-escape law, wherein the duties of the inspector of buildings and the fire chief and the electrical engineer were defined, and I am still of the opinion that such duties, unless defined in the law, would be held by the courts to apply severally and collectively, notwithstanding assignments or division of duties for administrative purposes or convenience. I would therefore request that the corporation counsel review the proposed bill, with the object of dividing the work, and I would recommend in all cases of regulation, such as theater inspections, that our respective duties be defined, or that all orders be issued from one office after reports from the others. I would also request an opinion of the corporation counsel as to the present understanding concerning inspection of electric wiring and electric-power machinery and mechanical electric alarm gongs since the passage of the act to regulate electric wiring in the District of Columbia, approved April 26, 1904. I concur in the recommendation of the committee which investigated the District departments, as expressed in paragraph (p. 96) of their report.

REMOVAL OF DANGEROUS BUILDINGS.

The present law relating to unsafe buildings should be amended by defining the duties of the jury or committee of survey or condemnation, and badly needs a provision for penalty where the owner refuses to comply with the notice of condemnation, as I find a growing tendency to neglect the work and allow the inspector of buildings to do it and assess the cost. I fear we have been too economical in such work. If we made it more expensive the owner would prefer to do it. The law should make clear how the

members of the jury are to be paid by the owner when adverse report is rendered, and when by the District, as all owners will appeal if the District pays the jury, in any event.

HOUSE NUMBERING.

I would invite attention to the difficulty under present conditions of assigning more than temporary house numbers outside of Florida avenue in the subdivisions where the streets do not conform to either the prolongation of city streets of the highway-extension plans, and I would recommend the approval of the regulations given in report of 1904.

The men in the office have worked earnestly and conscientiously, with realization of the responsibilities placed upon them, and the clerical force give their services after the usual office hours in order to keep up the clerical work from day to day, and, notwithstanding these efforts, the work is slightly behind, with little prospect of completion before the winter months, when the building business is not so brisk. The clerical services required are of such a nature that I deem it but justice to recommend in the estimates for the fiscal year of 1909 that their salaries be appropriately adjusted, and commend them to your consideration.

I have the honor to append the reports of the computers, assistant inspectors, the assistant inspectors of elevators and fire escapes, inspector of steam boilers and board of examiners for steam engineers, and the superintendent of repairs.

Very respectfully,

S. ASHFORD,
Inspector of Buildings.

Capt. WM. KELLY,
Corps of Engineers, U. S. Army,
Assistant to Engineer Commissioner, District of Columbia.

COMPUTERS' REPORT.

WASHINGTON, *July 25, 1907.*

SIR: We have the honor to submit annual report for fiscal year ending June 30, 1907, as follows:

We have made 416 sets of computations for new and the alteration of old buildings during the year.

We have made 41 sets of computations for the overhead structural work of hydraulic and electric passenger elevators and 86 sets of computations for the overhead structural work of hydraulic, electric, steam, and hand freight elevators.

We have made 64 strain sheets for roof trusses of varying span and type, framed girders, plate girders, cantilevers, towers, trestles, overhead cranes, derricks, etc.

We have inspected and passed 475 cast-iron columns as being in strict compliance with the building regulations. We have condemned 3 cast-iron columns as being of defective workmanship and of deficient sectional area.

We have made special inspections of riveting in steel-frame construction and have condemned as high as 60 per cent of the rivets driven in some cases.

We have been called upon on an average of twice a month during the year to make examinations and report on the safety of buildings rented by the United States Government for office, laboratory, or storage purposes, and have found cases in which the buildings were rapidly approaching the danger line and others in which the limit of safety had been reached. In this connection we can not but condemn the indiscriminate rental, use, and occupancy of buildings for purposes other than those for which they have been designed and erected.

We have made 48 load tests on fireproof floor, beam, girder, and column systems, in which steel, brick, terra cotta, and concrete, or a combination of two or more of the materials mentioned were used in conjunction.

It is a matter for congratulation that the few accidents occurring during the progress of these tests have been entirely of a minor character and that no fatality has to be recorded through the (at times) extremely dangerous character of the work.

The remarkable progress being made in the use of fire-resisting construction, whether of steel, terra cotta, brick, concrete, or other refractory material, or a combination of two or more of these materials, brings before us more forcibly than ever the absolute necessity for a fund for purposes of investigation and research. Progress may mean a

large amount of work executed, but can not and will not prove that the work executed is perfect and free from constructional and fire-resisting defects.

We have to note the persistent and very frequent but futile efforts of citizens to have drawings utterly lacking in intelligent detail approved by this office. These people seem to be imbued with the idea that architects or engineers are an unnecessary quantity and that the computers of your department are here as structural experts to aid them. We have turned down sets of drawings submitted by people of this class as often as eight times during the past year.

We are here to approve or disapprove, not to act in a consulting or advisory capacity.

Very respectfully,

C. W. SOMMERVILLE,
JOHN P. HEALY,
Computers, Building Department.

SNOWDEN ASHFORD,
Inspector of Buildings.

ASSISTANT INSPECTORS' REPORT.

WASHINGTON, *July 22, 1907.*

SIR: We have the honor to submit a statement of our official duties as assistant inspectors of buildings during the fiscal year ending June 30, 1907.

Visits to new buildings	38,009
Visits to old buildings	11,825
Visits of a miscellaneous character	13,256
Total 1907	63,090
Total 1906	63,010
Increase	80
Condemnation of buildings or parts thereof	900
Buildings taken down	485
Buildings reimbursed	519
Court cases	21
Defective downspouts (roof drainage)	349

While the number of visits made by your assistant inspectors show a slight increase over the previous year, the character of the work has been greater, owing to the increase of buildings in the county and time actually consumed in reaching the same.

We have endeavored, nevertheless, to give this work close attention, though many of the buildings are separated by a great distance. To enable your assistants to spend more time on the buildings in course of construction and to visit them more often, we would respectfully suggest that some other mode of conveyance other than bicycles be furnished by the District government.

As in the past, much of our valuable time has been taken up with complaints of a miscellaneous character that should not be imposed upon your assistants, necessitating time and labor that could be given to our proper line of work.

We feel that the time can not be spared to cover every detail of construction until such time as the office force can be increased sufficiently to curtail the amount of territory now assigned to each inspector.

We therefore earnestly request that special effort be made to have the force of the building department increased.

We again respectfully renew our suggestion made in our report since 1902 that some legislation be enacted by which builders may be required to establish their qualifications and practical knowledge of building construction. Our experience during the past years has confirmed the opinion that the adoption of such a measure would be beneficial not only to the building owner but also to the legitimate contractor.

In conclusion, we respectfully request that you give careful consideration to this, our urgent appeal for an increase of salary to $1,500 per annum. We make this request for various reasons. Every class of mechanic in the building trade is now receiving wages larger in proportion than the assistant inspectors in your office, notwithstanding the fact that the responsibilities are not to be compared with ours, also the increased cost of living, which has been recognized by legislative and corporate bodies increasing wages throughout the country.

Again appealing to you to give this matter your favorable consideration and heartily thanking you for your uniform kindness and courtesy, we have the honor to remain,

Most respectfully,

J. WM. DOWNING,
A. M. PROCTOR,
WATSON DALEY,
THOS. FRANCIS,
A. K. SELDEN,
JAMES P. PARRY,
A. S. J. ATKINSON,
E. G. CURTIS,
S. G. HUNTT,
Assistant Inspectors of Buildings.

SNOWDEN ASHFORD,
Inspector of Buildings.

REPORT OF INSPECTOR OF ELEVATORS.

WASHINGTON, *July 24, 1907.*

SIR: I have the honor to herewith submit my annual report of the duties performed in the district assigned me for the fiscal year ending June 30, 1907.

Total number of permits issued for installing new elevators, changing from hydraulic to electric power and remodeling old elevators:

New electric-power passenger elevators	8
New hydraulic-plunger passenger elevators	3
New electric-power freight elevators	43
New hand-power freight elevators	9
Elevators remodeled	1
Total number of permits	64
Number of inspections and visits concerning elevators, including 17 for the United States Government	960
Number of condemnations, including 8 for United States Government	243
Inspections of a miscellaneous character	341
Condemnations of a miscellaneous character	151
Number of buildings visited up to and including the month of February in reference to enforcing the fire-escape law approved March 19, 1906	20

Of this number but 1 building requiring license was equipped in compliance with the law.

During the year one serious accident occurred. This happened on an elevator in a department store, and the victim was a small boy in the company of his mother and father. He was on the car of the elevator while ascending. As the car started he jumped from where he was, standing between his parents, seized the iron grille work inclosing the elevator shaft and held on until the car, which could not be stopped instantly, caught him between the grille work, crushing him so that he died within a few moments.

I respectfully invite attention again to the necessity of enforcing section 205 of the Building Regulations, providing for the qualifications of operators of elevators.

With a reasonable amount of questioning into the ability and carefulness of the operators, the keeping of a roster of their names, and a regulation for operating a much better service would be obtained by the employers, and the liability of accident through carelessness or ignorance will be greatly diminished.

I also urge the promulgation of regulations prohibiting the use of freight carriers, attached to the under side of passenger elevators, for carrying persons. This is a very dangerous practice and many serious accidents have occurred from its use.

Respectfully submitted.

A. M. LAWSON,
Inspector of Elevators.

SNOWDEN ASHFORD,
Inspector of Buildings.

REPORT OF INSPECTOR OF ELEVATORS.

WASHINGTON, *July 24, 1907.*

SIR: I have the honor to herewith submit my annual report for the fiscal year ending June 30, 1907, covering the duties assigned me in sections south of Pennsylvania avenue from east to west and territory west of Tenth street south of Massachusetts avenue.

Number of passenger elevators installed	29
Number of freight elevators installed	33
Number of elevators inspected	1,110
Number of condemnations on elevators	915
Number of elevators inspected for United States Government	5
Condemnations on elevators for United States Government	6
Miscellaneous inspections	270
Miscellaneous condemnations	100
Total number of inspections, visits, and condemnations	2,406

In submitting my annual report for the past year I am pleased to say that the elevators have been remarkably free from defective mechanism that would cause damage to life, limb, or property.

I will say, however, that quite a few accidents have occured from the use of freight compartments attached to the bottom of passenger elevators, two deaths resulting from their use, one in the Richmond Hotel and the other in the Lenox apartments, not to speak of the number injured.

I can not too strongly condemn the use of these compartments and would urgently recommend that they be eliminated entirely.

Special attention has been directed to submerged rods in hydraulic elevators during the year, and with few exceptions they were found to be in a dangerous condition. Many rods had not been exposed for a number of years and they were corroded and eaten nearly in half. They were ordered out immediately.

Before closing I would again renew my former recommendations relative to the licensing of elevator operators in the District of Columbia.

Thanking you for your many courtesies and great kindness extended to me during the past year, I remain,

Yours, very respectfully,

W. I. EVANS,
Inspector of Elevators.

SNOWDEN ASHFORD,
Inspector of Buildings.

REPORT OF THE INSPECTOR OF FIRE ESCAPES.

WASHINGTON, *July 30, 1907.*

DEAR SIR: I have the honor to herewith transmit my annual report for the fiscal year ending June 30, 1907.

On March 19, 1906, Congress enacted a law entitled "An act to require the erection of fire escapes in certain buildings in the District of Columbia, and for other purposes."

On January 25, 1907, the Commissioners adopted regulations under that law.

Inspections were made under this law and regulations by all the assistant building inspectors of hotels throughout their several territories in addition to their other work.

As my appointment as inspector of fire escapes was only effective April 8, 1907, I am showing merely the number of inspections I have made personally, and in many instances there were six or seven inspections to the one building.

The class of buildings chiefly inspected were the hotels, a very small percentage being apartment houses.

Of the apartment houses there are approximately 500 in the District and at least 1,000 other buildings which will come under the fire-escape law of March 19, 1906.

The reason for the small number of inspections and escapes erected must be apparent when you will notice the dates of adoption of Commissioners' regulations, January 25, 1907, and of my appointment, April 8, 1907, something less than three months.

Number of notices served to erect escapes	83
Number of buildings having complied	31
Number of inspections	257
Number of inspections of Federal buildings	10
Number of condemnations	1

Very respectfully,

MALCOLM CRICHTON,
Inspector of Fire Escapes.

SNOWDEN ASHFORD,
Inspector of Buildings.

REPORT OF THE INSPECTOR OF STEAM BOILERS.

WASHINGTON, *June 30, 1907.*

SIR: I have the honor to submit the following report for the fiscal year ending June 30, 1907:

Boilers inspected	570
District of Columbia inspections	18
Fees still remaining due	20
Boilers condemned as unfit for further use	10
Cases of deposit and sediment	45
Cases of incrustation and scale	10
Cases of internal corrosion	4
Cases of external corrosion	7
Cases of internal groving	8
Defective braces and stays	9
Settings defective	7
Fractured plates	5
Burned plates	9
Blistered plates	9
Defective tubes	45
Defective heads	8
Serious leaks around tube ends	12
Defective blow-off	6
Cases of deficiency of water	3
Safety valves defective	18
Condemned for repairs	30
Defective steam gauges	20
Bulged heads and shell plates	9
Dangerous boilers	4

EXPENSES.

Care of horse	$244.00
Shoeing horse	18.25
Premium on bond	10.00
Painting wagon	25.00
Stationery and printing	31.25
Stamps	12.00
Candles	6.00
Repairs to wagon and harness	5.00
Blanket for horse	3.00
Gum cover	1.25
Clerical work	144.00
Business cards	1.00
Record books	.75
Rubber shoes for horse	2.50
	504.00
Total amount received	2,660.00
Expenses	504.00
	2,156.00

Very respectfully,

E. F. VERMILLION,
Inspector Steam Boilers.

SNOWDEN ASHFORD,
Inspector of Buildings.

REPORT OF THE BOARD OF EXAMINERS OF STEAM ENGINEERS.

WASHINGTON, *August 31, 1907.*

SIR: We herewith submit to you the report of the board of examiners of steam engineers for the year ending June 30, 1907.

The following table shows the work as it progressed from month to month:

	Meetings held.	Applicants received.	Applicants approved.	Applicants incompetent.	First class.	Second class.	Third class.	Dinkey class.	Gasoline class.	Special class.	Duplicate.
1906.											
July	4	18	8	10	.....	.....	8	.....	.....	.....	.....
August	6	13	6	7	.....	.....	5	.....	.....	.....	1
September	4	16	10	6	1	1	7	.....	1	.....	.....
October	5	20	9	11	.....	1	7	.....	.....	.....	1
November	7	31	22	9	1	.....	9	6	3	1	2
December	4	18	8	10	.....	.....	4	.....	4	.....	.....
1907.											
January	5	15	4	11	.....	.....	2	1	1	.....	.....
February	4	15	5	10	2	.....	3	.....	.....	.....	.....
March	5	26	10	16	4	1	4	.....	.....	.....	1
April	4	22	6	16	.....	1	2	.....	2	.....	1
May	5	24	9	15	.....	1	7	.....	1	.....	.....
June	5	23	13	10	.....	3	8	.....	2	.....	.....
Total	58	241	110	131	8	8	66	7	14	1	6

Our estimate of expenses for the year ending June 30, 1909, will be found herewith attached upon the blanks provided for that purpose. We most respectfully ask that the amounts set forth be appropriated.

Respectfully submitted.

E. F. VERMILLION,
H. BOESCH, Secretary,
DANL. JOHNSON,
Board of Examiners, District of Columbia, Steam Engineers.

SNOWDEN ASHFORD,
Inspector of Buildings.

REPORT OF THE SUPERINTENDENT OF REPAIRS.

The following report of the superintendent of repairs is made by Mr. Henry Storey, who was appointed to the position December 21, 1906.

The bulk of the repairs was made in the summer and fall of 1906, under the direction and system of the former superintendent.

The report is more in detail than formerly, but the change in office methods and results in the work will be more noticeable in next year's report.

This winter an improved system of stock account and disbursement will be inaugurated, which would seem to be a business-like check on the distribution and charge of District of Columbia property, which, with the time-card system on the men, should, I think, prove as effectual a safeguard as can be used, without employing additional assistants for such work only.

S. ASHFORD,
Inspector of Buildings.

Capt. WILLIAM KELLY,
Corps of Engineers, U. S. Army, Assistant to
Engineer Commissioner, District of Columbia.

WASHINGTON, *August 14, 1907.*

SIR: I have the honor to submit herewith a statement, explanatory of the work accomplished during the fiscal year ended June 30, 1907, and showing as ossible how the various appropriations for repairs to municipal buildings were e ed.

The greatest portion of the work was done during the months of July, A and September. To accomplish this work during the school vacation, it v to carry on the pay rolls more than 170 workmen.

All kinds of repair work, such as carpentering, painting, tinning, paving, grading, whitewashing, plastering, etc., were accomplished by day labor. The calcimining, steam fitting, mill, and iron work alone was done under contract with local firms.

Appropriations amounting to $82,750 were expended for repairs and improvements to school buildings and grounds, engine houses, and police stations.

The regular employees appointed by the Commissioners consist of a superintendent, two clerks, and a driver. An additional copyist was employed at $1.50 and later reappointed at $2 per diem to assist in the work of this department.

The only employees outside of the above named who might be called regular are as follows: Boss carpenter, boss tinner, boss painter, boss plumber, and bench carpenter and issuing clerk, at $4 per diem each.

The rate of pay of this department corresponds with the leading builders of the city, and is as follows: Bricklayers, $5 per diem; plasterers, $5 per diem; carpenters, $4 per diem; tinners, $4 per diem; painters, $3.50 per diem; laborers, $1.50 to $2 per diem, and skilled laborers from $2.25 to $3.50 per diem.

To show how the different appropriations were expended, I have, as far as possible, set forth the amount expended on each building.

The character of the work done is described as far as possible.

Repairs and improvements to school buildings and grounds, 1907.

[Appropriations, $65,000.]

Number and name of school.	Amount expended.
A.	
27. Abbot	$1,004.61
65. Adams	274.06
53. Addison	522.12
79. Ambush	492.55
42. Amidon	161.07
129. Armstrong, M. T	1,000.16
149. Anacostia	117.44
70. Arthur	147.72
Total	3,719.73
B.	
39. Banneker	148.00
78. Bell	108.03
48. Benning	471.86
56. Benning Road	540.57
66. Berret	469.83
127. Birney	208.15
74. Birney Annex	280.19
50. Blair	255.63
61. Blake	507.42
145. Blow	251.61
47. Bunker Hill Road	295.91
109. Bowen, A	485.07
123. Bowen, S. J	418.28
60. Bradley	387.02
46. Brent	853.56
75. Briggs	254.66
104. Brightwood	840.01
103. Brookland	827.48
112. Bruce	317.60
96. Buchanan	248.64
91. Burrville	313.81
144. Business High	540.29
Total	9,023.62
C.	
58. Carbery	363.70
148. Cardozo	685.90
43. Central High	1,641.29
6. Chain Bridge Road	115.11
113. Chevy Chase	509.63
25. Conduit Road	68.38
111. Congress Heights	718.00
30. Cook	220.44
68. Corcoran	274.12
137. Cranch	321.28
26. Curtis	1,433.94
Total	6,351.79
D.	
52. Dennison	$645.79
120. Dent	477.70
99. Douglass	419.41
Total	1,542.90
E.	
85. Eastern High	594.42
116. Eckington	551.29
135. Edmonds	231.69
133. Emery	913.83
Total	2,291.23
F.	
92. Fillmore	565.66
32. Force	475.00
11. Fort Slocum	140.93
15. Franklin	1,917.02
141. French, B. B	147.46
Total	3,246.07
G.	
143. Gage	2,113.91
36. Gales	405.17
106. Garfield	195.94
34. Garnet	657.36
76. Garrison	219.84
63. Giddings	160.26
73. Good Hope	47.20
41. Grant	305.20
35. Grant Road	75.62
105. Greenleaf	154.41
Total	4,334.91
H.	
37. Hamilton	1,105.91
84. Harrison	341.79
107. Hayes	901.68
33. Henry	333.34
1. High Street	243.21
20. Hillsdale	157.38
115. Hilton	274.50
119. Hubbard	247.72
147. Hyde	57.30
Total	3,662.83

Repairs and improvements to school buildings and grounds, 1907—Continued.

Number and name of school.	Amount expended.
I.	
100. Ivy City	$395.06
J.	
69. Jackson	484.47
23. Jefferson	229.92
95. Johnson	469.52
21. Johnson Annex	118.05
77. Jones	269.69
Total	1,571.65
K.	
128. Kenilworth	339.86
L.	
108. Langdon	581.85
Langdon Annex	45.96
132. Langston	169.00
67. Lenox	449.75
18. Lincoln	831.69
90. Logan	575.05
124. Lovejoy	375.09
142. Ludlow	203.91
Total	3,232.30
M.	
82. M Street High	408.13
71. Madison	362.29
62. Magruder	695.15
55. Maury	516.73
16. McCormick	410.46
130. McKinley	452.04
8. Military Road	256.15
Military Road Annex	118.43
72. Monroe	565.01
140. Montgomery	350.14
125. Morgan	541.99
44. Morse	317.41
40. Mott	169.41
Total	5,163.34
O.	
122. Orr	388.49
P.	
93. Patterson	249.51
98. Payne	537.04
31. Peabody	1,031.42
131. Petworth	740.50
57. Phelps	340.60
81. Phillips	253.06
94. Pierce	224.39
86. Polk	600.88
17. Potomac	478.95
Total	4,456.35
R.	
28. Randall	$172.94
139. Reno	149.32
110. Reservoir	417.07
146. Ross	664.40
Total	1,403.73
S.	
22. Seaton	513.77
134. Simmons	90.04
80. Slater	219.17
64. Smallwood	433.16
138. Stanton	313.63
97. Stevens	586.77
19. Sumner	358.65
126. Syphax	211.22
Total	2,726.41
T.	
118. Takoma	512.88
88. Taylor	465.36
102. Tenley	416.90
29. Thomson	393.84
14. Threlkeld	464.02
114. Toner	194.73
59. Towers	1,381.28
45. Twining	221.26
83. Tyler	979.89
Total	5,030.16
V.	
87. Van Buren	368.85
38. Van Buren Annex	297.78
Total	666.63
W.	
4. Wallach	304.99
121. Webb	163.00
51. Webster	786.19
54. Weightman	267.25
117. Western High	988.83
136. Wheatley	214.95
98. Wilson	325.91
101. Woodburn	511.52
49. Wormley	671.92
Total	4,232.56

SUMMARY.

Total accounted for	$63,779.62
Salaries	529.00
Horse hire and forage	387.38
Material	246.16
Unexpended	57.84
Total	65,000.00

To give an idea of the character of the repairs and improvements made I have enumerated, under their respective heads, the largest items:

Carpentering.—There were more than 100,000 feet of lumber of different kinds used in the repairs to schools, the majority of which was flooring. There were, in round numbers, 51,319 feet of the latter laid, the largest amount being laid in the following

schools: Abbot, No. 27; Addison, No. 53; Ambush, No. 79; Berret, No. 66; Buchanan, No. 96; Bunker Hill Road, No. 47; Congress Heights, No. 111; Cranch, No. 137; Dennison, No. 52; Gales, No. 36; Garnet, No. 34; Hamilton, No. 37; Harrison, No. 84; Ivy City, No. 100; Johnson, No. 95; Langdon, No. 108; Lenox, No. 67; Monroe, No. 72; Morse, No. 44; Payne, No. 98; Peabody, No. 31; Petworth, No. 131; Phelps, No. 57; Phillips, No. 81; Stevens, No. 97; Taylor, No. 88; Tenley, No. 102; Tyler, No. 83; Van Buren, No. 87; Webster, No. 51; Woodburn, No. 101; and Wormley, No. 49.

The inside window blinds were removed in the following schools: Amidon, No. 42; Bruce, No. 112; Hayes, No. 107; Johnson, No. 95; Jones, No. 77; Lincoln, No. 18; Morse, No. 44; Patterson, No. 93; Phillips, No. 81; Taylor, No. 88; Thomson, No. 29, and Toner, No. 114.

New flag poles were placed on the following schools: S. J. Bowen, No. 123; Carberry, No. 58; Giddings, No. 63; Kenilworth, No. 128; Montgomery, No. 140, and Stevens, No. 97.

There was a large case built in the physical laboratory of the Eastern High School, No. 85.

Book closets were erected and placed in the following schools: Addison, No. 53; Bradley, No. 60; B. B. French Manual Training, No. 144; Gage, No. 143; Grant, No. 41, Morse, No. 44, and Potomac, No. 17.

Sash cords were repaired in all buildings where needed.

Other carpentering work of a miscellaneous character was done on every school building.

Storm sheds built at the Blow, No. 145; Cranch, No. 137; Petworth, No. 131; Smallwood, No. 64, and Weightman, No. 54.

Brickwork.—Bridge walls under boilers were all examined and repaired. At the Armstrong Manual Training School, No. 129, the fire-boxes, grates, and doors were changed for better service and the Acme stokers were removed.

A brick wall on the north and south sides of the Gage School, No. 143, 230 linear feet long, was erected. At the Towers School, No. 59, a coal vault of 60-ton capacity was built. Other brickwork was done in the following-named schools: Abbot, No. 27; Dent, No. 120; Gage, No. 143; Giddings, No. 63; Jackson, No. 69; Lenox, No. 67; Maury, No. 55; Peabody, No. 31; Petworth, No. 131, and Smallwood, No. 64.

Plastering.—There were 122½ tons of mortar used at the following schools: Adams, No. 65; Addison, No. 53; Amidon, No. 42; Armstrong Manual Training, No. 129; Bell, No. 78; Benning, No. 48; Benning Road, No. 56; Berret, No. 66; Birney Annex; Blair, No. 50; Blake, No. 61; S. J. Bowen, No. 123; Bradley, No. 60; Briggs, No. 75; Brightwood, No. 104; Bruce, No. 112; Bunker Hill Road, No. 47; Burrville, No. 91; Carberry, No. 58; Chain Bridge Road, No. 6; Corcoran, No. 68; Cook, No. 30; Curtis, No. 26; Dennison, No. 52; Dent, No. 120; Fillmore, No. 92; Force, No. 32; Franklin, No. 15; Gage, No. 143; Garnet, No. 34; Giddings, No. 63; Grant, No. 41; Harrison, No. 84; Henry, No. 33; High Street, No. 1; Hilton, No. 115; Hubbard, No. 119; Jackson, No. 69; Jefferson, No. 23; Jones, No. 77; Kenilworth, No. 128; Lenox, No. 67; McCormick, No. 16; McKinley, No. 130; Morgan, No. 125; Monroe, No. 72; Montgomery, No. 140; Potomac, No. 17; Payne, No. 98; Peabody, No. 31; Phelps, No. 57; Pierce, No. 94; Randall, No. 28; Slater, No. 80; Stevens, No. 97; Takoma, No. 118; Taylor, No. 88; Thomson, No. 29; Towers, No. 59; Webb, No. 121; Webster, No. 51; Weightman, No. 54; Wheatley, No. 136; Wilson, No. 89; Woodburn, No. 101, and Wormley, No. 49.

Tinning.—There was a large amount of tin work done on the schools, the principal being as follows: Abbot, No. 27, new urinal trough and repaired roof; Adams, No. 65, new down spout; Addison, No. 53, 2 deck spouts and 4 dampers in hall pipes; Ambush, No. 79, renewed all defective smoke pipes; Amidon, No. 42, repaired valleys; Armstrong Manual Training, No. 129, flashed trapdoor which was cut in roof; Arthur, No. 70, roof repaired, 1 new down spout and new urinal hood; Banneker, No. 39, roof repaired; Bell, No. 78, renewed all defective smoke pipes; Benning, No. 48, new valleys east and west sides of building; Benning Road, No. 56, lined 12 closet boxes and 1 urinal, also covered storm shed; Berret, No. 66, renewed 30 feet of valley on north side of building and painted all tin valleys; Birney Annex, gutter and spout; Blair, No. 50, repaired roof, spouts, and register box; Blake, No. 61, new lower gutters, deck spouts, and covered pediments; Blow, No. 145, covered storm shed; A. Bowen, No. 109, new wall courses on 4 sides of building; S. J. Bowen, No. 123, roof repaired; Bradley, No. 60, all defective smoke pipes replaced and roof repaired; Brent, No. 46, flashed trapdoor which was cut in roof, covered storm shed, and renewed all defective pipes to furnace; Briggs, No. 75, covered storm shed and repaired roof; Brightwood, No. 104, new roof on building and 4 valley gutter spouts; Brookland, No. 103, new hanging gutters on outhouse and cap in end of smoke pipes to boiler; Bruce, No. 112, covered storm shed, set register in furnace to heat play room, and 2 dampers in hall

pipes; Buchanan, No. 96, covered 2 portico roofs and put on 2 new down spouts; Bunker Hill Road, No. 47, covered storm shed and repaired roof; Burrville, No. 91, lined 6 closet boxes; Carbery, No. 58, renewed all defective smoke pipes to furnace; Chevy Chase, No. 113, repaired porch roof and 2 registers, also lined 18 boxes; Congress Heights, No. 111, repaired roof, covered and ventilated 2 closets; Corcoran, No. 68, repaired roof and erected 2 new down spouts; Curtis, No. 26, new flat seam roof on back building, new galvanized-iron water table, and new down spout; Dent, No. 120, 2 new register hoods; Douglass, No. 99, renewed all defective smoke pipes and in 8 regulating knobs; Eckington, No. 116, renewed all defective smoke pipes and 2 dampers were put in halls; Fillmore, No. 92, 2 new down spouts and new lower gutters; Force, No. 52, new hanging gutter and spouts on outhouse; Franklin, No. 15, repaired roof and renewed 6 deck spouts; Gales, No. 36, roof repaired; Garnet, No. 34, roof repaired; Giddings, No. 63, new pipes to furnace; Greenleaf, No. 105, renewed all defective smoke pipes; Hamilton, No. 37, lined 12 closet boxes, repaired roof, and covered and ventilated 2 closets; Harrison, No. 84, repaired roof and put 2 dampers in hall pipes; Hayes, No. 107, new deck roof, lower valleys, and portico; High Street, No. 1, 20 feet of new valley; Hilton, No. 115, snow guards repaired; Hillsdale, lined 6 closet boxes; Jackson, No. 69, roof repaired and all smoke pipes renewed where found defective; Johnson, No. 95, 2 new deck spouts and roof repaired; Kenilworth, No. 128, lined 8 closet boxes, new spouts on outhouses, and repaired roof; Langdon, No. 108, 1 chimney cap, covering 2 closets, and lined 6 boxes; Lenox, No. 67, renewed all defective smoke pipes; Lincoln, No. 18, new chimney cap and roof repaired; Logan, No. 90, 1 new down spout and roof repaired; Lovejoy, No. 124, roof repaired; M Street High, No. 82, new cap; Madison, No. 71, renewed defective smoke pipes and repaired roof; Maury, No. 55, renewed defective smoke pipe; McCormick, No. 16, new urinal hood and renewed all defective smoke pipes, also repaired roof; Montgomery, No. 140, covered storm shed; Morgan, No. 125, covered storm shed and repaired roof; Morse, No. 44, new hanging gutter on 2 outhouses; Patterson, No. 93, renewed all defective smoke pipes; Peabody, No. 31, 1 new down spout; Petworth, No. 131, covered storm shed; Pierce, No. 94, new pipe to 2 stack heaters; Phelps, No. 57, covered storm shed; Polk, No. 86, 1 down spout and roof repaired; Potomac, No. 17, covered storm shed and repaired roof; Reno, No. 139, 4 new down spouts; Reservoir, No. 110, 1 new down spout; Ross, No. 146, new register shields in corridor, first floor; Seaton, No. 22, roof and cornice repaired; Smallwood, No. 64, new valley (30 feet) on north side of building, and covered storm shed; Stevens, No. 97, 4 new down spouts; Sumner, No. 19, covered storm shed; Syphax, No. 126, new chimney shield; Takoma, No. 118, covered storm shed and repaired 4 down spouts; Taylor, No. 88, lined front of 4 furnaces; Tenley, No. 102, lined 12 closet boxes; Threlkeld, No. 14, 4 new down spouts; Twining, No. 45, renewed all defective smoke pipes; Tyler, No. 83, hot-air pipes repaired and 2 new down spouts; Van Buren Annex, No. 38, new valley gutters, flashing walls, 4 new down spouts, and 1 new chimney cap; Webster, No. 51, 2 new down spouts; Weightman, No. 54, new hanging gutter over boys' entrance, and covering storm sheds; Woodburn, No. 101, 20 feet of gutter; Wormley, No. 49, new valley gutters around entire building.

The roofs of 34 school buildings were painted, as follows: Abbot, No. 27; Bell, No. 78; Benning, No. 48; Berret, No. 66, Birney, No. 127; A. Bowen, No. 109; Bradley, No. 60; Brent, No. 46; Brightwood, No. 104; Bunker Hill Road, No. 47; Business High, No. 144; Corcoran, No. 68; Curtis, No. 26; Fillmore, No. 92; Gage, No. 143; Hayes, No. 107; High Street, No. 1; Hubbard, No. 119; Johnson, No. 95; Lenox, No. 67; M Street High, No. 82; Magruder, No. 62; Maury, No. 55; McCormick, No. 16; Morse, No. 44; Pierce, No. 94; Polk, No. 86; Slater, No. 80; Takoma, No. 118; Taylor, No. 88; Tyler, No. 83; Van Buren, No. 87; Van Buren Annex, No. 38, and Wormley, No. 49.

Painting, graining, and varnishing.—There was a large amount of painting done other than that named below: Brent, No. 46, all outside brickwork painted two coats of red, and penciled; all windows and doors (outside) painted two coats; Brookland, No. 103, interior of old portion of building painted, grained and varnished; Central High, No. 43, west side and front painted two coats of red and penciled, also 4 large chimneys; Chevy Chase, No. 113, windows, blinds, cornice, front and back porches painted; Curtis, No. 26, brickwork on front two coats red and penciled, also windows on front painted two coats; Congress Heights, No. 111, painted cornice, boys' and girls' closets, inside and out; Hubbard, No. 119, all interior varnished and front fences and porch painted; Polk, No. 86, interior painted, grained, and varnished; Stevens, No. 97, all doors painted; Ludlow, No. 142, interior varnished, iron columns painted, grained, and varnished, and frames in halls (3 stories) painted, grained, and varn d e Polk Stevens, p. 13, Supr. Reps. rept.); Threlkeld, No. 14, interior pai

building, boys' and girls' closets inside and out, and 2 porches, also outside doors and fences; Woodburn, No. 101, interior painted, grained, and varnished.

Painting, graining, and varnishing was done on other schools, but on a smaller scale.

Book closets and storm sheds where built were painted.

Blackboards were repaired and reslated in all buildings where found necessary.

Glazing.—An immense amount of glazing was done throughout the District, nearly every building having had glass broken and replaced.

Calcimining.—Calcimining was done in the following-named school buildings: Addison, No. 53; Ambush, No. 79; Bennings, No. 48; A. Bowen, No. 109; Bradley, No. 60; Brent, No. 46; Brookland, No. 103; Corcoran, No. 68; Eckington, No. 116; Franklin No. 15; Gales, No. 36; Hamilton, No. 37; Henry, No. 33; Johnson, No. 95; Johnson Annex, No. 21; Langdon, No. 108; Logan, No. 90; M Street High, No. 82; Magruder, No. 62; McKinley, No. 130; Military Road, No. 8; Monroe, No. 72; Peabody, No. 31; Potomac, No. 17; Seaton, No. 22; Threlkeld, No. 14, and Tyler, No. 83.

Steam fitting, heating, and ventilating apparatus.—Repairs were made to heating and ventilating apparatus, as follows: All gas engines in the schools were overhauled and repaired where needed. All furnaces were overhauled and repaired. Smoke pipes were cleaned in all the schools. All stoves were overhauled and repaired. Grate bars furnished and put in place in the following schools: Armstrong Manual Training, No. 129; Curtis, No. 26; Force, No. 32; Grant, No. 41; Stevens, No. 97; and Western High, No. 117. Work on steam plants was done in several of the school buildings.

Boilers retubed.—Boilers were retubed in the Emery, No. 133, and Webster, No. 51.

Floor oil.—There were, in round numbers, 3,712 gallons of floor oil furnished to the different schools.

Grading, sodding, and cement work.—Grading, sodding, and cement work was done at the following schools: Cardozo, No. 148; Gage, No. 143, and Ross, No. 146.

Grading grounds around buildings alone was done as follows: Hyde, No. 147, and Takoma, No. 118.

Iron fences were erected at the Cardozo, No. 148; Gage, No. 143, and Ross, No. 146.

During the year Mr. G. B. Coleman died, and December 21, 1907, I was appointed to fill the important office of superintendent of repairs, and since that time I have endeavored to continue the work under the system adopted by my predecessor, with the exception of a few slight changes, one of which was the adoption of a card system in keeping the records of the shop, showing the amount and nature of repairs on each building. A daily time card has been provided for the workmen, checking the time of arrival and leaving of a building. Both changes have been giving satisfactory results and will be continued. A change has also been made in the system of reporting repairs; All such reports (except extreme emergency cases) are now sent through the board of education instead of direct to the repair shop, as has been the custom. This avoids the duplicating of requests and results in the saving of time and expense.

During the year a record has been kept of buildings damaged by fire or other causes as follows: Thomson, No. 29, was damaged by fire, caused by defective hot-air pipes; damage amounted to $300. Montgomery, No. 140, damaged by fire, caused by gas stove in janitor's room igniting the woodwork; damage amounted to $50. Lincoln, No. 18, resulted in a false alarm; door was broken in by fire department; damage amounted to $10.

Repairs to and changes in plumbing.

[Appropriation, $5,000.]

Number and name of school.	Amount expended.	Number and name of school.	Amount expended.
A.		123. S. J. Bowen	$20.09
27. Abbot	$2.70	60. Bradley	5.99
65. Adams	14.66	46. Brent	17.56
53. Addison	37.76	104. Brightwood	15.87
79. Ambush	11.90	103. Brookland	25.70
42. Amidon	6.37	96. Buchanan	14.55
129. Armstrong Manual Training	27.24	144. Business High	30.64
70. Arthur	10.07	Total	372.48
Total	110.70	C.	
B.		58. Carbery	44.87
39. Banneker	47.39	43. Central High	340.12
48. Benning	115.55	30. Cook	17.20
66. Berret	2.43	68. Corcoran	3.30
127. Birney	33.59	137. Cranch	59.85
50. Blair	30.15	26. Curtis	65.40
61. Blake	1.84	Total	530.74
145. Blow	11.13		

Repairs to and changes in plumbing—Continued.

Number and name of school.	Amount expended.
D.	
52. Dennison	$17.62
120. Dent	13.28
99. Douglass	12.05
Total	42.95
E.	
116. Eckington	25.92
85. Eastern High	21.11
135. Edmonds	39.86
133. Emery	125.27
Total	212.16
F.	
92. Fillmore	.93
32. Force	27.04
15. Franklin	5.27
141. French, B. B	21.70
Total	54.94
G.	
143. Gage	9.55
36. Gales	87.12
34. Garnet	45.81
76. Garrison	1.62
63. Giddings	3.05
41. Grant	17.53
35. Grant Road	26.09
105. Greenleaf	42.74
Total	233.51
H.	
84. Harrison	2.93
107. Hayes	2.80
33. Henry	33.12
1. High Street	8.29
119. Hubbard	25.52
Total	72.66
J.	
69. Jackson	1.32
23. Jefferson	33.75
95. Johnson	18.32
21. Johnson Annex	17.82
Total	71.21
L.	
132. Langston	15.07
67. Lenox	1.10
18. Lincoln	21.23
90. Logan	1.40
124. Lovejoy	39.58
142. Ludlow	40.51
Total	118.89
M.	
82. M Street High	101.25
71. Madison	17.44
62. Magruder	5.85
55. Maury	16.31
16. McCormick	.65
130. McKinley Manual Training	42.20
8. Military Road	17.06
27. Monroe	$7.05
140. Montgomery	31.25
125. Morgan	8.67
44. Morse	3.30
40. Mott	7.65
Total	258.68
O.	
122. Orr	.55
P.	
93. Patterson	3.30
98. Payne	5.03
31. Peabody	6.30
131. Petworth	24.84
57. Phelps	3.14
94. Pierce	4.85
86. Polk	3.50
17. Potomac	2.05
Total	53.01
R.	
28. Randall	73.54
110. Reservoir	1.80
146. Ross	9.36
Total	84.70
S.	
22. Seaton	9.10
134. Simmons	14.73
80. Slater	1.28
64. Smallwood	14.35
97. Stevens	116.65
19. Sumner	10.76
126. Syphax	7.75
Total	174.62
T.	
118. Takoma	46.62
88. Taylor	1.49
102. Tenley	6.52
102. Tenley Annex	11.18
29. Thomson	10.94
14. Threlkeld	24.55
114. Toner	12.45
59. Towers	7.41
45. Twining	3.96
83. Tyler	7.26
Total	132.38
V.	
87. Van Buren	22.17
W.	
4. Wallach	6.68
121. Webb	40.94
51. Webster	8.13
54. Weightman	36.28
117. Western High	170.43
136. Wheatley	.80
89. Wilson	7.63
49. Wormley	4.54
Total	275.43

SUMMARY.

Total accounted for	**$2,821.78**
Material on hand	**2,176.80**
Unexpended	**1.42**
Total	**5,000.00**

Repairs of a miscellaneous nature were made on nearly every school building in the District.

Your attention is invited to the amount of material on hand which was found to be necessary, as journeymen plumbers are now employed in making plumbing repairs instead of having this work done by local firms.

The employment of plumbers is another change that has been made with satisfactory results, and will be continued.

Repairs and improvements to engine houses and grounds, 1907.

[Appropriation, $8,000.]

	Amount expended.		Amount expended.
Engine houses:		Truck houses:	
No. 1	$122.70	No. 1	$224.39
No. 2	516.64	No. 2	355.73
No. 4	170.45	No. 3	90.76
No. 5	70.62	No. 4	259.14
No. 6	316.60	No. 5	242.11
No. 7	130.47	No. 6	169.88
No. 8	1,871.57	No. 7	116.49
No. 9	407.38		
No. 10	176.82	Total	1,458.50
No. 11	173.24		
No. 12	171.78	Chemical houses:	
No. 13	59.50	No. 2	184.63
No. 14	501.02	No. 5	224.15
No. 15	176.60		
No. 16	247.32	Total	408.78
No. 17	174.28		
No. 18	61.88		
No. 19	72.39		
No. 20	393.21		
Total	5,814.47		

SUMMARY.

Total accounted for	$7,681.75
Material on hand	253.39
Forage and horse hire	43.64
Unexpended	21.22
Total	8,000.00

Some of the largest and most important work done in the engine houses is named below:

Engine houses.—No. 1: Repaired floors in captain's room, and brickwork on rear stable; new joker platform, and raised track 2 inches higher. No. 2: Repaired doors, blinds, stable floors, put cover on manure pit, new roof on main and back buildings, gutter and spout for same, lined 5 stalls with galvanized iron, and painted all tin work two coats. No. 4: New support in engine room, repaired floors, doors, windows, and hose tower. New gutter and spout on feed house; chimney cap and pipe for hose tower. No. 5: Narrowed engine track 1½ inches; new spout was put on feed house. No. 6: Extra stall in engine room and lined with galvanized iron; all tin work was painted. No. 7: New roof on back building. No. 8: New addition on west side of house 18 by 75 feet. No. 9: New roof on main and back buildings, gutter and spout for same; new slate roof on tower; all tin work was painted. No. 10: New roof on extra stable, 1 stall lined with galvanized iron, and all tin work painted. No. 11: Stable floors repaired and windows weather stripped; all tin work was painted. No. 12: Woodwork of horse stalls repaired and 5 lined with galvanized iron. No. 13: Stall floors, panel doors, and trap door were repaired. No. 14: New floor in horse stalls and terra-cotta cornice was repaired on portico. No. 15: Stall floors were repaired. No. 16: New floor in sitting room and new gutter on main building; all tin work was painted. No. 17: Five new lockers on second floor, and stall floors were repaired. No. 20: New smoke pipe to furnace.

Truck houses.—No. 1: New horse stalls in rear of building. No. 2: New granolithic pavement in front of building. No. 3: New roof on straw house, gutter on stable, and lined 5 stalls with galvanized iron. No. 4: New gutter on main building. No. 6: Covered fire walls on three sides of building; painted all tin work. No. 7: New skylight on roof of straw house; all tin work was painted.

Chemical houses.—No. 2: New base under engine track.

All cells, fences, and stables were whitewashed where needed.

Repair work of a miscellaneous nature, besides the items named above, was done on every engine house.

Repairs to police stations, 1907.

[Appropriation, $4,750.]

Police stations.	Amount expended.	Police stations.	Amount expended.
No. 1	$325.38	No. 9	$324.66
No. 2	165.85	No. 10	381.02
No. 3	1,899.57	Substation A	48.58
No. 4	167.49	Substation T	51.36
No. 5	119.48	Harbor police station	54.74
No. 6	279.76	School street stables	1.69
No. 7	159.35		
No. 8	509.32	Total	4,488.25

SUMMARY.

Total accounted for	$4,488.25
Horse hire and forage	21.82
Material on hand	164.32
Unexpended	75.61
Total	4,750.00

There was a large amount of repair work done other than that named below.

Police stations.—No. 1: New blinds on cellar windows, plastering driver's room in stable loft, new flag pole, new roof gutter and spout on stable and main building, and all tin work painted. No. 2: New brick manure bin. No. 3: Installing new plumbing in bath rooms on first, second, and third floors; new brick manure bin, new wall courses around entire building, new gutter on stable, and all tin work was painted; all interior walls in building painted two coats; doors, windows, and lockers were painted, grained, and varnished, also floors were stained and varnished. No. 5: Placed iron rods on sash in office to strengthen windows. No. 6: New brick manure bin, new doors on buggy house, new smoke pipe to furnace, and gutter on stable. No. 7: New spouts on main building, and gutter and spout on stable. No. 8: One closet and lavatory on third floor, cut window in office, new fence (T. & G.), new spout on main building and stable, and all tin work was painted. No. 9: All interior walls on first floor painted two coats, and all interior woodwork on first floor painted, grained, and varnished; new spout was put on main building, and tin work painted. No. 10: New manure bin, new gutter and spout on stable and wagon shed; painted all tin work; ceiling and walls of hall in basement painted three coats; dado on first and second floors and walls in dormitory painted; 48 steel plates were placed on cells.

I have the honor to report that the repair shop is now located in a portion of the old pumping station, No. 1617 U street northwest, for which an appropriation of $2,500 was provided by Congress to alter the building for this purpose. The shop was moved from the old location, No. 13 D street northwest, last June. A balance of $609.45 remains unexpended, which will be used later in making additional alterations as soon as the other portion of the building is vacated by the water department.

MISCELLANEOUS.

In addition to the repairs and improvements made under the above-mentioned appropriations, 215 jobs on other municipal buildings were completed by and under the supervision of this department, which amounted to $4,023.17.

Respectfully,

HENRY STOREY,
Superintendent of Repairs, District of Columbia.

SNOWDEN ASHFORD,
Inspector of Buildings.

REPORT OF THE INSPECTOR OF PLUMBING.

WASHINGTON, *August 29, 1907.*

SIR: I have the honor to submit herewith the twenty-fifth annual report of the work performed by this office for the fiscal year ending June 30, 1907.

INSPECTIONS.

During the fiscal year the number of inspections made by this office was 32,100, being an increase of 1,915 over that of last year and 4,763 over that of the year previous. These inspections summarized are as follows:

Examination of plumbing, existing, of a preliminary nature	6,943
Inspection of remodeling, extensions and repairs to plumbing in old houses	7,234
Inspection of plumbing in new buildings	8,031
Inspection of gas and gas fitting	1,951
Inspection of lead and water service pipe	836
Inspection of new terra-cotta house sewers	217
Inspection of repairs to terra-cotta sewers	621
Peppermint tests and final inspections	2,681
Sewer taps into main sewers	900
Notices served on owners and plumbers by inspectors	245
Examination on complaints	1,513
Inspections of District work in progress	917
	32,100

The small difference in the number of inspections this year over that of last year was no doubt due to the unsettled condition of the labor situation, which has resulted in retarding building operations and created a diminution in plumbing work. The number of inspections have increased from year to year, as will be seen from the following table, and is one of the best arguments I can make for an increase in the office force, either permanent or temporary, as the inspectors can not properly protect themselves against passing defective work, nor is the property owner or this office secure against defective work for the same reason, because of the insufficient time the assistant inspectors can allow each case because of the number of other inspections they are required to make. It is most difficult to detect defective work, such as doctored joints, cracked fittings or pipe, and other defects, as they can be skillfully patched to deceive an inspector and are easily passed on a hasty inspection. These defective pipe and fittings may stand a peppermint test, because there is no pressure exerted in making this test, but will later on cause no end of expense to correct; so that there should be sufficient men to assign smaller districts, so that more time could be allowed for more careful inspection of the work.

	Inspections.
1894-95	5,708
1895-96	8,677
1896-97	14,113
1897-98	17,550
1898-99	17,600
1899-1900	17,405
1900-1901	18,965
1901-2	22,621
1902-3	25,297
1903-4	25,637
1904-5	27,337
1905-6	30,185
1906-7	32,100

Considering the number of inspections made by the 6 field inspectors and the amount of office work that is required of them to properly look after and report upon the plumbing work installed by 195 registered plumbers, show the present force is inadequate, when consideration is also given to the great number of complaints of defective plumbing received by this office and which consumes a great deal of time in having the complaint rectified. It is almost impossible in many instances for the inspector to be at a building at the time designated to inspect the plumbing which subjects the office to criticism and entails additional expense upon the property owner who must pay for the time the plumbers are thus delayed on remodeling work. This condition will be relieved if the 1 additional permanent inspector and the 4

additional temporary men asked for are allowed. The salary of the assistants is exceedingly low, when it is taken into consideration that their knowledge of plumbing raises them above the average workman, that they must detect defective work and correct badly designed plumbing and often instruct mechanics how it should be installed. The salary they receive is below that received by assistant inspectors of plumbing in Philadelphia ($1,200), St. Louis ($1,440), and the assistant inspectors of buildings in this city ($1,200). There has been no increase in the salary since the office was created, yet the work has increased materially and likewise the cost of living. If the increase from $1,000 to $1,200 is allowed, it will be an incentive for better work, as the man who falls behind will have a better man placed in his position at the increased salary.

TEMPORARY ASSISTANTS.

The $1,200 allowed this office this year for temporary assistants allowed me to temporarily employ 2 men, who have been of material benefit and assistance to the present force. This year I have asked for 4 temporary men, and request, if allowed, that the money be made immediately available so that the increased work in the early spring may be taken care of by these men and that their term of service may be six consecutive months, as it would be difficult to obtain men for three months' employment only for the summer of one year and the spring of the next.

The increased number of inspections necessarily involves an increase in the reports, indorsements, letters, and orders which have to be written and indexed, and involves greatest effort on the part of the present clerk and myself to keep the office work up to date, frequently causing us to work overtime and to be continually rushed from the beginning to the end of the official day, and for that reason, and because this office has never been assigned a messenger, I urgently recommend that an index clerk asked for be provided, to relieve the present clerk of the duties of copying letters, attending the telephone, and a great deal of the indexing and many other small duties too numerous to mention, but which now devolve upon the clerk. He could also relieve the assistant inspectors of the indexing and the writing of their reports, and thus allow them to get into their respective districts more promptly than at present.

COMPLAINTS.

During the year there were 1,603 complaints filed in this office against defective plumbing. The complaints necessitate the inspector giving a great amount of his time in investigating the cause of the complaint and in writing the report of the same at the office, and they require numerous inspections after the service of the notice before the defective plumbing is finally corrected. The complaint of water in the cellar is one which causes more inspections than any other, and its cause is most difficult to determine, because it can be brought about by leaking sewer or water service, not only in the house where the water appears in the cellar, but in houses quite remote from the cellar in which the water appears. This last year I have used aniline yellow powdered dye on supposed defective sewers, a small amount of which colors a large quantity of water a yellowish green tint. I have been able to obtain very good results in using this dye in defective sewers, as it is a most positive proof that the sewer of the adjoining property is leaking when the colored water appears in the cellar where the accumulation is complained of.

OFFICE WORK.

Orders to repair plumbing and gas fitting	1,094
Letters to Engineer Commissioner and other officials	356
Letters to master plumbers	213
Miscellaneous letters and papers	1,705
Indorsements on communications	996
Police court cases, fined or nolle prossed	73
Examination of building repair applications	2,484
Plans prepared	13
Specifications prepared	28
Plans and specifications revised	2
Examination of plans for new buildings	3,138
Number of 2-cent stamps used	2,558
Number of 1-cent stamps used	84

From the preceding table it will be seen that 3,138 plans were examined for new buildings, and 2,484 applications approved, after examination in many cases, for alterations and additions to buildings. I again call attention to the fact that a number of

plans for buildings for District work prepared by other departments of the District government were not submitted to this office for consideration of the plumbing, and it seems to me that all plans and specifications of plumbing for District buildings should be passed upon by this office, and that plan, specification, and section should be filed the same as is required of private individuals, so as to be sure that the work conforms with the plumbing regulations.

POLICE COURT CASES.

Total number of warrants obtained during the year, 73—.

Subdivided as follows:		Disposition:	
Unlicensed plumbers	21	Fines imposed	13
Unlicensed gas fitters	9	Forfeited collateral	19
Violations of plumbing regulations	37	Personal bonds	2
Violations of police regulations applicable to plumbing	1	Nolle prossed	27
Violations of building regulations applicable to plumbing	2	Continued indefinitely	2
Violations gas-fitting regulations	1	Dismissed	2
Excavations without permit	2	Information granted	1
		Pending	4
		Not apprehended	3

Fines imposed	$205
Forfeited collateral	245
Total	450

In addition to the foregoing cases there were five in which warrants were obtained prior to the end of the fiscal year ending June 30, 1906, and which had not been disposed of within said year; in two cases $20 each was posted as collateral and the cases postponed indefinitely to enable the attorney in the cases to appeal to the Commissioners, one case was nolle prossed because the work ordered had been performed, and two cases forfeited collateral of $20 each.

Eleven warrants were obtained for registered plumbers. Fines were imposed in 2 cases, 3 forfeited collateral, and 6 were nolle prossed because the work had been performed and brought into conformity to the regulations after warrants had been obtained for their arrest.

Nineteen cases against owners and lessees for failure to remodel plumbing were nolle prossed because the work ordered by the Commissioners had been performed after service of warrants.

One case against unregistered plumbers was nolle prossed by order of the Engineer Commissioner and one case nolle prossed because of defective information filed.

During the year the case of Joseph E. Daly, whose license was revoked by the Commissioners, was taken to the court of appeals, and the court decided that the Commissioners were without authority to revoke a plumber's license, in view of the fact that no specific authority was mentioned in the act of Congress approved June 18, 1898. The Commissioners should not be without this authority, and effort should be made to have the pending legislation on this subject, H. R. 24931 (E. D. 37733/25), passed during this coming session of Congress.

PER DIEM EMPLOYEES.

Roscoe C. Flinder, temporary assistant inspector of plumbing, at $3, 110 days	$330
D. A. Driscoll, inspector, 88 days, at $4, charged to "Constructing public convenience stations"	352
Wm. J. Fay, inspector, 193 days, at $4, charged to "Constructing public convenience stations"	772
Wm. J. Fay, inspector, 44 days, at $4, charged to contractor for the work, on account of delay	176

During the fiscal year it was found necessary to provide a temporary draftsman to assist in the preparation of school plans, measuring buildings in connection with repairs to plumbing in existing school buildings, and other detail work incident thereto. This work was performed by Roscoe C. Flinder, for the time and amount as set forth above.

The other two inspectors of construction were temporarily employed to superintend the construction of the two public convenience stations, located at Seventh street and Pennsylvania avenue northwest and on the north side of Pennsylvania avenue between Thirteenth and Fourteenth streets northwest, reservation No. 33.

BICYCLE REPAIRS.

This subject was called to the attention of the Commissioners in last year's report. The assistants are now allowed $30 a year to maintain their bicycles in proper condition. The cost of repairs, new tires, etc., have frequently cost the men considerably over this amount, and I am of the opinion the amount allotted each month to the several inspectors to keep their wheels in repair should be increased to $50 a year, the same as the bicycle policemen receive. My assistants ride their wheels during all kinds of weather, winter and summer, and through rough country roads in the suburbs, where the chances of puncture and breaking down of the wheel are very much greater than in the city. Their inspections frequently cause them to cover distances ranging from 15 to 20 miles a day.

SUBURBAN HOUSE SEWERS.

I urgently recommend that continued efforts be made for ample appropriation for providing main-artery public sewers to the densely populated suburbs, so that extensions can be made when conditions warrant such extensions. Where there is no sewer available, due to the fact there is no main public sewer from which branches could be made, occupants of dwellings in the suburbs have to depend upon temporary subsoil drains or sewage-disposal systems when they desire plumbing within their houses. It is frequently found upon examination of the soil that it is not suitable for either of these temporary systems, so that the occupants are practically debarred from having modern plumbing installed within their premises. Public sewer and water mains when extended increase the value of the land abutting on either side and naturally increase the revenues of the District by increased taxation, besides giving property owners an opportunity for installing modern plumbing and lessen to a great extent the danger of disease.

PLUMBING IN SCHOOL BUILDINGS.

The appropriation of $45,000 for "Repairs to and changes in plumbing in existing school buildings, District of Columbia, 1907," was expended as follows:

Complete remodeling:	
Lenox	$3,570.47
Corcoran	4,561.45
M Street High	9,484.83
Tyler	4,337.58
Phelps	3,883.36
Harrison	4,022.43
Jones	4,700.86
Jackson	3,791.16
Preliminary or partial work in:	
Van Buren	23.06
Adams	19.53
Smallwood	19.53
Monroe	21.95
Abbott	[a] 1.13
Polk	397.00
Stevens	46.00
Ross	128.00
Extending water services	170.73
Expenses incidental to inspection	158.91
Hire of temporary draftsman	330.00
Drafting material	5.38
Total expended	39,673.36
Allotted to superintendent of repairs	5,000.00
Unexpended balance	[b] 326.64
Amount of appropriation	45,000.00

[a] Blueprints.
[b] One account still open, which may reduce this by $75.

There were eight buildings in which the plumbing work was completely remodeled—new seat-action closets, urinals, lavatories, drinking fountains, etc., and new lead water services. There were two instances where the old sewers were entirely replaced with new, and in nearly all of them there was extensive replacing of sewers found to be defective when exposed. In one school (the M Street High School) it was found necessary to replace practically all the sink wastes and vents in the laboratories, as well as the plumbing in the toilet rooms. At the urgent request of the school authorities shower baths were also installed in this school and have been extensively used by the pupils generally.

There are yet a number of schools with the old Smead dry-closet system and others requiring change, and the same amount should be appropriated again as appropriated for the current year—$50,000.

COMPULSORY DRAINAGE.

There have been received in this office 79 cases for compulsory drainage under the provisions of the acts to provide for the drainage of lots and for the abatement of public nuisances.

Four of these have been done by this office at a cost of about $850; 9 are in the hands of the board for the condemnation of insanitary buildings; 10 are being done and 9 have been completed by owners; 5 are under notice (3 of which the owners have agreed to have the work done); 13 are awaiting notice, which will be served when the ownership is determined; and 23 have not been acted upon in any manner.

Since the organization of the board for the condemnation of insanitary buildings it has complicated the manner of handling compulsory drainage cases, so that it now takes at least four months instead of two or two and a half, as formerly. Working together with the board, however, we are able to get a large number of premises not only connected to the sewer and water, but put in good shape structurally by the owners, and in a number of cases the old houses have been removed. I believe the policy of extending notices and otherwise accommodating the owners to be to the interests of the District of Columbia. There are many cases, however, where it is necessary for the office to prepare plans and even make arrangements to have the work done before the owner or agent (who most always disclaims such relationship until the last moment) "weakens" and has the work done himself. Six such cases came up this year.

Again I desire to call attention to the fact that the present drainage act is weak in parts and is not explicit enough in others. I would earnestly recommend that a new law be drawn by the corporation counsel and submitted to Congress covering all disputed points, as the constitutionality of section 4 of this act has been attacked and is now in court for settlement of that point.

PUBLIC CONVENIENCE STATIONS.

The two public convenience stations authorized by Congress have been completed and opened to the public.

The station at Seventh street and Pennsylvania avenue northwest is above ground, and has been open for several months. Thirty thousand people used it the first month, and the general average since has been 60,000, or about 2,000 persons per day—2 per minute during the hours it is open. The underground station at Thirteenth street and Pennsylvania avenue northwest has not been open so long, and on account of its unobtrusive location is not so well known, but it averages about 50,000 per month, and I believe will eventually be the more popular of the two. These two stations without a doubt are the best appointed and ventilated, most sanitary, and generally complete stations in the country. Their extensive use by our citizens and thousands of visitors amply justifies their construction. Every effort has been made to have the stations live up to their name and be a convenience to the public in every way, rather than simply a toilet room. As a great convenience to women and a temperance measure among men they are doing excellent work, it no longer being necessary for one to go to a hotel or a saloon.

There is urgent need for just three more such stations at main points—one near the Peace Monument, which would better be left to the Capitol authorities; one each at junctions of Ninth and F streets northwest and Fifteenth street and New York avenue northwest. The former could be placed under the sidewalk at the southwest corner of the Patent Office square, with entrance steps thereto inside of the fence. The one at Fifteenth street and New York avenue northwest could be placed under the sidewalk at the northeast corner of the Treasury Building, steps giving access tl to being placed inside of the fence line. Both these stations could well be ...er than the present ones, especially on the women's side. I recommend a

capacity of 6 closets and 2 basins for women; 8 closets, 14 urinals, and 3 basins for men. Arrangements could probably be made with the Interior Department and the Treasury Department for heat, light, and power for these stations if authorized by Congress.

The cost of operating the present stations averages about two-fifths of a cent per patron, and this will undoubtedly decrease. If 1 cent was charged for admittance and use of facilities, the station at Seventh street (using present attendance as a basis) would bring in about $600 per month, with an expense of about $250.

The present law provided that the Commissioners have power to fix fees, but that the money shall go back into the Treasury; therefore the more money taken in the more money it costs for operation.

This could be remedied by allowing the receipts to be used for certain purposes, say the purchase of soap and towels and the laundering of same.

There is scarcely a day that some visitor from other cities does not ask the attendant to show him over the building, what it costs, rules, etc., and this office has had numerous requests for copies of plans and specifications, as well as photographs, being from Grand Rapids, Mich.; St. Louis, Mo.; Wilmington, Del.; Providence, R. I., and Scranton, Pa., which shows the widespread interest the country at large has in the appointments of the capital city. It would appear to me that the two additional stations should be granted by Congress, so that the congested centers could be served by them. They act as bureaus of information, temporary hospitals in case of necessity, telephone stations, dressing rooms for visitors, and many other uses in addition to toilet purposes, and the remark frequently heard is, "How did we get along without them?"

PUBLIC BATHS.

I have recommended for several years the establishment of one or more public bath houses and several tentative plans have been made in this office for shower-bath buildings, and I again strongly urge that something be done to make a start, knowing that their establishment will prove that in Washington the public bath, open all the year, is a civic necessity, just the same as the public convenience stations have proven a great necessity.

Practically every city of any size in Germany, England, Switzerland, and Austria have one or more baths, some sufficiently large to accommodate 1,200 persons at one time. The larger cities have several baths, 22 cities of Germany alone having more than one establishment, not counting showers, with which nearly every school building is fitted. Vienna has one bath which is valued as an asset of the city of $584,000 (actual cost unknown), and has in addition 10 other establishments of various sizes, with 8 others in process of construction or planned. London has upward of 30 public baths, representing investments between $50,000 and $200,000 each.

In the United States the Bulletin of Commerce and Labor issued in 1904 lists 24 cities as having municipal shower or pool bath establishments open all the year round; twelve cities have 1 bath, five have 2, two have 3, two have 4, one has 9, one has 13, and one has 15. The cities supporting public bath houses at the time the report was printed were Buffalo, Chicago, Cleveland, Albany, Baltimore, Boston, Brookline, Brooklyn, Detroit, Holyoke, Kansas City (Mo.), Louisville, Milwaukee, Newark, New York, Philadelphia, Portland, Providence, Rochester, St. Louis, Syracuse, Troy, Utica, Yonkers. There were also in the above cities 10 semipublic baths (owned by charitable societies) and in the United States upward of 200 bath establishments and natatoriums, ranging in cost from $2,000 for the Salina bath at Syracuse to over $500,000 for the famous Sutro baths of San Francisco.

It will be noted that Washington is not represented in the above list of cities, although in point of population it is much above the average, and in point of importance it should be well toward the top.

Washington has not even a first-class bath house controlled by private capital, except in connection with two Turkish baths—Bovee's and the Lafayette—for both of which the same charge is made for a shower and plunge as for the full-steam bath service, $1 each or eight tickets for $5. The Young Men's Christian Association has showers and pool open to members only at $16 per year. Several more or less exclusive clubs, with annual fees from $12 to $250 per year, have bathing facilities, and one or two apartment houses have public pool baths, limited to tenants. Two or three employers of labor furnish showers for their employees, Corby Brothers having the best installation of the kind. Five barber shops have a tub bath at 25 to 50 cents per bath, all in close, ill-smelling rooms, with antiquated facilities. It will be seen from the above list that if one does not number a bath tub among the improvements at his home a bath becomes more or less of a luxury, not only financially, but in the matter of getting to it.

The only approach to a popular bath is the bathing beach, open from three to three and a half months of the year, and it is very inaccessible, totally inadequate, and really expensive to the user, considering the service rendered and the car fare that must be paid in nine cases out of ten in addition to a long walk.

It is not the citizen that possesses the tub in his own home or the one who has funds to join a more or less expensive athletic association or club that it is desirable to reach with these public bath houses, but it is each of two other classes, for widely varying reasons.

The first class is that large one in Washington with no home but a small room in some tenement, which has no tub or hot water, and realizes that bathing is a necessity if it could be provided within their means. The second class is a comparatively large one in congested centers, who rarely take a full bath, contenting themselves with simply keeping their faces and hands more or less free of grime. The public shower bath (the type I recommend) would teach these people that bathing with good soap and clean hot water is not only an easy thing to accomplish, but is invigorating and would tempt this class by the accessibility of the bath houses and their freedom of expense, into the practice of bathing as a habit.

In regard to the civic value in other ways than simply the promotion of cleanliness, no city that has been provided with free public baths for a few years would question the fact that they are a large factor in the improvement of alley and slum conditions.

In this connection it might be well to state that the first customer, the first morning the convenience station No. 1 was open, at a few minutes past 6, asked to be shown the "bath compartment," and requests for baths are made at both stations many times each day.

I would most respectfully recommend that the amount submitted in my estimate toward the establishment of public shower-bath houses be retained and strong representations made to Congress in the matter of an appropriation.

BATHS IN SCHOOLS.

In my report for two years I took up the advisability of providing pool baths for the accommodation of pupils of the schools, and again recommend that something be done toward this end.

A recognized authority on swimming says: "I have never yet found a boy or girl who could walk who could not learn to swim, and it is difficult for me to understand why an art so easily acquired is not possessed by all, women as well as men, girls and boys alike. Had I my way, I would make it compulsory on every boy and girl who attends school to learn to swim."

In the Technical World for August, a famous swimmer notes the water's annual yield of sorrow and misery, and says: "I have no hesitation in saying that nearly all these sad events might be prevented if elementary instruction in swimming and life-saving were made compulsory in public schools. And in the Old World, at any rate, a new era is dawning in this matter—especially in London, where the various school swimming associations, with hundreds of thousands of adherents, are teaching first of all "dry-land " swimming in the playgrounds, and then practical instruction in specially erected swimming baths under competent instructers, engaged by the school authorities."

But learning the knack of keeping afloat in the water, whether at school or elsewhere is only a beginning. Men and women of average strength ought to be able to go more than a few hundred yards without becoming utterly exhausted. They have the strength, the wind, the endurance. What they lack is knowledge of balance and breathing. Those who know how can swim a mile with less exhaustion than their fellows who swim only 150 yards."

It would appear to me a more useful part of the curriculum than perhaps gardening, which knowledge nine-tenths will never use. A half hour a week during one year would make every student a swimmer, and many of them experts, if properly taught. Many learn to swim when young without instruction and get to be fairly good swimmers, when a little instruction would have taught them in a proper way, and they might have been experts, equipped to save their own and others' lives, if necessary. If swimming had been compulsory in our schools some years ago the community would probably have been spared the series of distressing fatal accidents in the river during the past years.

It is the best of exercise when moderately indulged in, and half an hour a week would tend to make vigorous citizens as well as teach the art of swimming properly, and would also be of undoubted value to teach familiarity with the water and cleanliness.

Baths so provided for the teaching of school children could be well used for free bath houses at times not in use by the school authorities.

Respectfully submitted.

HENRY B. DAVIS,
Inspector of Plumbing, District of Columbia.

Capt. WM. KELLY,
Corps of Engineers, U. S. Army,
Assistant to Engineer Commissioner, District of Columbia.

REPORT OF THE PLUMBING BOARD.

WASHINGTON, *August 21, 1907.*

SIR: I have the honor to submit the following statement of the work of the plumbing board for the past fiscal year:

There were held during the year 26 meetings for the examination of candidates for master plumbers' and gas fitters' licenses. The total number of examinations held during the year is 53. The number of original candidates examined for licensing as master plumbers and gas fitters is 19, of whom 11 passed and 8 failed. Of those who had previously been examined 9 passed and 11 failed. Six candidates passed the examination for licensing as master gas fitters and 8 failed.

In accordance with the provision of the recent act of Congress, whereby the number of members to constitute the board was reduced from 5 to 3 members, the Commissioners appointed Messrs. Joseph R. Quinter, Patrick J. Brick, and Richard A. O'Brien as members of said board for the period of one year, commencing July 1, 1906.

Very respectfully,

PETER C. SCHAEFER, *President.*
RICHARD A. O'BRIEN, *Secretary.*

Capt. WM. KELLY,
Corps of Engineers, U. S. Army,
Assistant to Engineer Commissioner, District of Columbia.

REPORT OF THE BOARD FOR THE CONDEMNATION OF INSANITARY BUILDINGS.

WASHINGTON, *August 16, 1907.*

CAPTAIN: We have the honor to submit herewith the following report of the transactions of the board for the condemnation of insanitary buildings for the year ending June 30, 1907.

Number of houses inspected and action taken with respect thereto.

	Examined.	Demolished.	Repaired	Pending.
Alleys	175	89	33	53
Streets	274	115	61	98
Total	449	204	94	151

Cases referred to other departments for correction, such as dirty yards, leaky hydrants, defective closets, full box privies, dangerous sheds and dwellings, defective gutters and down spouts, and other minor defects	219
Total number of meetings of the board for the condemnation of insanitary buildings	47
Preliminary notices served	338
Condemnation notices served	216
Signs affixed to buildings	195
Total	749

Number of tenants required to secure other quarters by reason of buildings being demolished through action on the part of the board for the condemnation of insanitary buildings:

Adults	355
Children	203
Total	558

Of the 204 houses demolished, 199 have been torn down directly by the owners after service of notices by the board; the other 5, through neglect or refusal of owners to remove after service of notices, were demolished under the direction of the board, as provided for under the law.

One voucher, amounting to $5, has been drawn against the appropriation for the removal of premises No. 1008 I street northeast, this being the only case where the old material in the structure would not pay for the removal, as provided for in the act.

Three cases have been referred to the corporation counsel for appropriate action in the police court. One of these was nolle prossed by reason of the removal of the building, and action in the other two has been suspended pending the removal or repair of the buildings.

One case, involving 5 houses, is now pending before the supreme court of the District, and at the present time it is impossible to determine the outcome.

Special attention has been paid by the board to dilapidated structures unprovided with sewer and water connections, with a view of either removing or, if the premises were worthy, connection with sewer and water, in order to eliminate the box privies in the more thickly settled portions of the city.

Of the 558 tenants affected by the demolition of buildings in the District of Columbia, all were colored, with three exceptions. A small percentage of the tenants are going into the suburbs, but the majority prefer to remain within the city.

A few cases have required a small additional allowance of time for the removal, on account of the poverty of the tenants and their inability to accommodate them. Whenever it was found that diligent efforts were being made to carry out the orders of the board, action was deferred for a reasonable time, if necessary, in order to permit this end to be accomplished.

With few exceptions, every facility has been extended to the board by the real estate agents in its efforts to find the owners of property when, by reason of unrecorded transfers, failure to locate through the directory, and other reasons the service of notices was peculiarly difficult.

While the act of Congress was approved May 1, 1906, the appropriation to carry on the work did not become available until July 1, 1906, and the preparation of proper blanks, organization, and other details required considerable time. The long periods that necessarily elapsed under the law after the board began active operations and before any apparent results were attained caused the progress of the first year to be apparently slower than it will be in the future.

It has been considered wise to act upon abandoned houses as well as those occupied, because there seems to be no limit to the willingness of people to occupy a house so long as there is more or less roof and some apology for walls. On several occasions houses have been recorded as "abandoned" by the inspector and possibly a month or so later be examined and found occupied. Many abandoned houses were vacated originally because the owner preferred to have the same idle rather than to connect with sewer and water main under the drainage act, and disuse has rendered them fit subjects for condemnation. The average vacant and abandoned house immediately becomes a public convenience station and is as much of a menace to the health of the residents in the vicinity as if it was occupied.

There are two distinct types of houses that require the attention of the board; one is the "shanty" or "shack" and the other is the more pretentious house that has seen better days and degenerated into the present condition either by overcrowded occupancy or disuse and stands to-day in a state of dilapidation and decay. The latter type is generally a one or two story dwelling and the destruction not uncommonly results in the erection of a better house to take the place of that destroyed.

The tenement-house condition as it is met with in other large cities does not exist to any great extent in Washington.

Bad housekeeping is responsible for more insanitation than any other one cause. Many tenants prefer to stand in the back door and throw their ashes and garbage in the yard rather than place them in the can for the collectors. By this process, the yard soon becomes filled to such an extent that sometimes rain falling upon it runs into the house. Such conditions are particularly noticeable in rows of similar houses, where some will be as clean as soap and water will make them and others will be found

in the foulest possible condition, with accumulation of various kinds of dirt, trash and junk, kept for no other reason than a disinclination to let go after once coming into possession.

A school of good housekeeping, in which to teach the ignorant how properly to take care of themselves and their homes, would be of more benefit from a sociological point of view than the literary and musical knowledge obtained in connection with so-called education, that seems to produce too frequently a general aversion for anything resembling hard work.

In the report of the health officer for the year ending June 30, 1879, it is stated that 308 houses were demolished or repaired under the direction of the board of health, their action being based on section 9 of the board of health ordinances, which reads as follows:

"That any dwelling house or building wherein people live, congregate, or assemble, which is deficient in ventilation, drainage, or other provisions essential to health, which has a leaky roof or is below grade, so as to render the walls thereof damp and the rooms unhealthy, or is decayed or filthy, and the premises which are filthy, and offensive are hereby declared nuisances injurious to health; and any person who shall create or maintain such nuisance, and who shall fail, after due notice from the board, to abate the same, shall, upon conviction, be fined not less than five nor more than fifty dollars for every such offense."

The above was repealed as shown by the report for the year ending June 30, 1880, which contains the following reference to insanitary buildings·

"In the legalization of the health ordinances last winter, however, it was deemed wise by the gentlemen of the Senate Committee on the District of Columbia to leave out three sections, one of which was the section under which we acted in having house nuisances abated."

Furthermore, from 1880 until March 1, 1899, there was no adequate law to provide for the removal of even dangerous or unsafe buildings. The building regulations prior to 1899 provided that a dangerous or unsafe building should be removed by the owner, no provision being made for removal by the District if such owner failed, though section 20 of these regulations provided for prosecution in the event of the owner failing to remove or make safe.

The act of March 1, 1899, entitled "An act to authorize the Commissioners of the District of Columbia to remove dangerous or unsafe buildings and parts thereof, and for other purposes," not only provides for the examination, service of notice, etc., but also provides for the removal of the structures and an assessment against the property to be collected as other taxes are collected.

The building regulations from 1878 to the present time have provided that where a frame structure has depreciated more than 50 per cent of its original value, exclusive of the value of the foundations, it should not be repaired, but should be torn down. This meant that the owner or party in interest must take the initative, and in many cases he carefully refrained from making repairs because he knew if he applied for a permit to do so, he would not only be refused, but would have to demolish the building.

From the above it appears that for twenty-six years prior to the creation of the present board for the condemnation of insanitary buildings, approved May 1, 1906, there was no adequate means of providing for the removal of buildings that were dilapidated, insanitary, and everything but safe.

Very respectfully,

WM. KELLY,
Captain, Corps of Engineers, U. S. Army,
WM. C. WOODWARD, M. D.,
Health Officer,
S. ASHFORD,
Inspector of Buildings,
Board for the Condemnation of Insanitary Buildings.

Capt. JAY J. MORROW,
Corps of Engineers, U. S. Army,
Engineer Commissioner, District of Columbia.

REPORT OF ASSISTANT ENGINEER IN CHARGE OF ROCK CREEK PARK.

WASHINGTON, *October 5, 1907.*

SIR: I have the honor to submit the following report of operations in Rock Creek Park during the fiscal year ended June 30, 1907:

The larger part of the appropriation has been required for maintenance of roads and care of grounds.

About 12 miles of bridle paths were cut through the park.

A small rustic foot bridge was placed across Rock Creek below the ford at the foot of Blagden avenue.

Parts of Beach driveway and of the Ridge road were repaired with macadam.

The construction of a concrete arch on Ross driveway, to take the place of an old rustic trestle, was begun in June, 1907.

Crushed limestone and screenings were bought in June for the purpose of macadamizing about 750 linear feet of the Ridge road lying south of the Military road.

A force of the chain gang, with teams and dump men partly paid for from the park appropriation, has been employed throughout the greater part of the year in the construction of a public golf course. During the year the fair greens were cleared, plowed, and sowed in cowpeas; and the putting greens were constructed and sowed with grass.

A count of the vehicles passing a given point was taken on two Sundays in June, showing 2,750 on June 10 and 3,761 on June 17, in addition to bicycles, equestrians, and pedestrians.

It is respectfully recommended that in the next fiscal year a system of paths for pedestrians only be laid out and built. The roads and bridle paths are so crowded with vehicles on Sundays and holidays that walking is attended with danger and discomfort.

The construction of two or three rustic shelters for use in case of sudden storm is also recommended.

The sum of $20,000 can profitably be expended during the fiscal year ending June 30, 1909.

The expenditure was divided as follows:

Labor for care and maintenance of park, including team hire, sprinkling, and hired labor and teams employed on golf course		$11,396.89
Blacksmithing and similar work		160.48
Crushed stone		774.04
Other materials of construction, cement, paint, etc		142.53
Tools and implements for all purposes		141.98
Feed for wild fowl		42.11
Stationery		36.30
Seed and fertilizers for golf course		547.20
Miscellaneous items		85.76
Ross road bridge:		
Material	$938.41	
Labor	709.99	
		1,648.40
		14,975.69
Balance unexpended		24.31
Amount of appropriation		15,000.00

Respectfully submitted.

L. R. GRABILL,
Assistant Engineer.

Capt. JAY J. MORROW,
Corps of Engineers, U. S. Army,
Engineer Commissioner, District of Columbia,
Secretary, Board of Control, Rock Creek Park.

REPORT OF THE PERMIT CLERK.

WASHINGTON, *July 31, 1907.*

CAPTAIN: I have the honor to submit the annual report of the operations of the permit clerk's office, giving by monthly summary in detail the character and number of permits issued during the fiscal year ended June 30, 1907.

Permits issued, for which fees were paid, as shown by the receipts of the collector of taxes, District of Columbia, on applications therefor, were:

	1906.						1907.						Total.
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	
Water:													
Connections	213	130	161	156	165	148	70	73	182	206	237	198	1,939
Repairs	132	135	116	134	133	128	106	79	84	122	85	103	1,357
Sewer:													
Connections	192	155	167	163	170	158	125	80	186	212	243	222	2,073
Repairs	92	80	86	93	96	80	80	50	94	72	91	79	903
Gas and electricity:													
Connections	287	134	214	228	221	116	99	56	148	243	206	218	2,170
Repairs	6	21	10	23	5	16	14	9	11	20	9	8	152
Carriage blocks	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	.....	3
Clocks over sidewalk	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1
Conduits:													
Chesapeake and Potomac Telephone Co.	44	42	14	11	15	19	35	3	14	41	22	17	277
Potomac Electric Power Co	7	11	18	11	20	2	8	1	.....	15	6	6	105
Private	.....	1	1	2	.....	1	.....	1	3	2	.....	1	12
Gas mains, lay	4	4	3	4	9	5	.....	3	10	11	13	5	71
Guard stones	.....	.....	1	.....	1	3	.....	.....	.....	.....	1	.....	6
Hitching posts	3	1	2	.....	4	.....	.....	.....	.....	.....	.....	.....	10
Lamp-posts, private	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Manholes, connect with sewer:													
Chesapeake and Potomac Telephone Co.	14	14	11	2	15	20	6	2	5	6	24	12	131
Potomac Electric Power Co	2	4	6	17	3	2	7	.....	2	.....	.....	.....	43
Railroad	1	3	5	1	1	.....	.....	.....	4	8	2	1	26
Manholes, construct and enlarge	9	1	7	6	6	5	8	1	11	.....	2	7	63
Parking, fences, erect	40	39	15	30	29	18	7	6	29	69	69	32	383
Poles	26	32	38	23	21	35	22	21	23	23	30	24	318
Total	1,072	807	875	904	914	756	587	385	807	1,051	1,043	933	10,134

Permits issued without fees were:

	1906.						1907.						Total.
	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June.	
Special:													
Water	26	28	33	22	41	44	35	26	30	22	27	30	364
Sewer	37	32	71	50	47	53	21	20	44	41	41	37	494
Gas	.....	1	.....	2	4	.....	.....	.....	2	1	.....	.....	10
Alleys, close	1	1	.....	1	.....	.....	.....	.....	1	.....	.....	1	5
Blasting	3	1	1	2	3	2	.....	2	4	2	2	3	27
Bridges	3	2	3	1	1	3	.....	.....	1	4	4	2	24
Cables, aerial	7	3	2	3	1	10	12	4	6	9	7	3	67
Conduits, Potomac Electric Power Co., no fees	4	2	6	4	1	1	2	2	5	.....	6	6	39
Connections, overhead	.....	6	4	6	7	9	7	.....	3	6	6	5	59
Copings	54	56	45	29	40	31	10	5	21	25	34	116	466
Drain under sidewalks	.....	.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	3
Driveways	3	6	7	7	3	9	1	.....	6	6	7	4	59
Engines	1	2	2	2	1	3	1	1	1	.....	.....	1	15
Leads:													
Lay	82	83	113	99	95	69	12	8	56	99	93	95	904
Repair	17	23	22	13	19	2	3	.....	8	30	20	39	196
Parking:													
Grade	25	37	6	7	14	9	12	5	13	32	19	23	202
Occupy	.....	1	.....	.....	.....	.....	.....	.....	1	.....	.....	2	4
Pave	6	5	6	10	2	3	4	1	3	9	4	2	55
Railings, repair	28	15	41	22	42	20	13	6	27	79	52	50	397
Renewals	57	87	50	24	54	46	75	33	90	68	34	13	631
Roadways:													
Close	1	1	.....	1	.....	.....	1	1	1	.....	.....	1	7
Grade	3	3	3	3	4	2	2	.....	4	3	5	.....	32
Occupy	.....	1	1	.....	1	.....	1	.....	.....	8	1	2	15
Repair	1	3	4	1	3	1	1	.....	.....	4	4	1	23
Sidewalks:													
Grade	.....	.....	2	2	.....	1	1	.....	1	.....	1	2	10
Haul across	9	5	4	5	8	2	4	2	7	11	7	2	66
Lay	29	28	16	28	17	26	5	3	22	86	34	15	309
Repair	3	3	.....	1	10	5	2	.....	4	5	5	2	40
Steps on parking	60	57	77	51	56	37	8	5	31	52	69	89	529
Stopcock boxes	8	.....	.....	8	.....	.....	8	.....	.....	8	.....	.....	32
Tar kettle	.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2
Trees:													
Remove	.....	1	3	2	4	.....	3	.....	11	.....	1	1	26
Whitewash	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	2
United States Government	.....	3	2	.....	.....	1	1	1	2	1	.....	.....	11
Walls, retaining	3	4	7	5	6	3	.....	1	6	7	6	8	56
Water tables	13	13	32	10	26	3	2	.....	13	11	15	23	161
Wires, string	37	6	13	48	4	13	43	7	5	39	13	6	234
Anacostia and Potomac River R. R. Co	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	2
Baltimore and Ohio R. R. Co	.....	1	.....	1	.....	1	.....	.....	.....	.....	.....	1	4
Capital Traction Co	.....	.....	.....	.....	2	.....	.....	.....	1	1	1	.....	5
Philadelphia, Baltimore and Washington R. R. Co	.....	.....	2	.....	2	.....	.....	.....	.....	.....	.....	1	5
Washington, Alexandria and Mount Vernon R. R. Co	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Washington Railway and Electric Co	1	.....	.....	.....	.....	.....	6	.....	.....	1	.....	1	9
Washington Terminal Co	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Miscellaneous	2	1	.....	5	2	1	2	1	4	.....	.....	4	22
Total	526	522	579	476	521	410	300	136	434	671	529	591	5,686

There has been a decrease of 199 in the number of permits as compared with the fiscal year ended June 30, 1906, and of $362 in the amount of money paid to the collector of taxes, District of Columbia, for the fees, as shown on applications bearing his authorized official signature on file in this office.

Permits issued during the fiscal year:

1905–6	16,019
1906–7	15,820

The following table shows the number of permits issued during the past ten years and the amount of money paid for permit fees to the collector of taxes, District of Columbia, during that time:

Fiscal year.	Permits issued.	Fees paid.	Fiscal year.	Permits issued.	Fees paid.
1897-98	10,465	$7,845	1902-3	12,559	$7,930
1898-99	11,330	7,602	1903-4	12,565	8,103
1899-1900	10,589	6,797	1904-5	13,908	9,518
1900-1901	10,552	6,583	1905-6	16,019	10,496
1901-2	11,496	7,388	1906-7	15,820	10,134

One thousand one hundred and forty-seven communications have been referred to this office, briefs made on cards, the necessary permits written, the papers indorsed with the action taken, then returned to the record office of the engineer department or through that office to the division having charge of the inspection of the work for which the permits were issued.

A daily report of all permits for excavations to be made in the public space has been forwarded to the engineer of highways.

I wish to make acknowledgment of the excellent work of the assistant permit clerk and the index clerk, most frequently under adverse conditions, continuous connected attention to one thing at a time being often impracticable by reason of the variety and multiplicity of permits issued and the giving of information not only pertaining to the work of this office, but in directing applicants to the proper offices in the building.

H. M. WOODWARD,
Permit Clerk, District of Columbia.

Capt. J. J. MORROW,
Corps of Engineers, U. S. Army,
Engineer Commissioner, District of Columbia.

REPORT OF THE WHARF COMMITTEE.

WASHINGTON, *September 1, 1907*

SIR: The wharf committee has the honor to submit the following report of its operations during the fiscal year ended June 30, 1907. Accompanying the report is a list of the wharf property under lease, from which it will be seen that the amount received from rentals during the year was $16,247.52.

Under an appropriation of $2,500 in the District appropriation act for the fiscal year 1906, "for surveys, plans and estimates for improving the harbor front in the city of Washington," surveys have been made and plans are in course of preparation for a system of docks along the Washington channel. It is expected to have this report ready for submission to Congress at its next session.

WHARVES ALONG THE WASHINGTON CHANNEL.

The most important dock frontage of the city is that which exists along the Washington channel, between Seventh and Fourteenth streets. Here all the excursion and passenger traffic is located and in the upper portion the commercial wharves for handling coal, ice, lumber, etc. This property is under lease, which leases do not expire in most cases until 1912, having been made under authority of an act of Congress authorizing leases for a period of ten years. The original leases were made for a period of five years, most of them dating from March 15, 1903, but the privilege of renewing the leases was reserved, providing certain improvements were made by the tenants. Some improvement in the appearance of the wharves has been made, but the general condition is one of dilapidation, and no efforts toward improving are being made by the tenants, except such improvements as are necessary for their own use. The docks and wharves are not laid out upon any system, and there is a great waste of valuable wharf space. The docks have not been dredged, in most cases, for many years, and in consequence only the fronts of the wharves are available for landing. The structures themselves are of both earth and pile construction, but the piles have outlived their usefulness and the bulkhead walls of the piers are giving away. During the year two of the structures along the front were destroyed by fire. They were replaced by the

tenants and the insurance money received was applied toward the replacing in accordance with the terms of the lease.

While the report of the committee on the improvement of the water front has not been completed, sufficient progress in the study of the matter has been made to outline the improvements contemplated. The first step will be to increase the channel width 300 feet by moving back the wall of the Potomac flats, and in this connection it is proposed to widen Water street by setting the shore bulkhead out a sufficient distance to give a width of 160 feet. Piers of pile construction are to be extended from this bulkhead line a distance of 300 feet, with dock room between them of 150 feet. Provision will be made for all the traffic which now uses the frontage and for the natural increase of such traffic, which the committee think will follow the improvements contemplated. There will be municipal piers, fish and oyster wharves, and provision made for a marine railway.

WHARVES ALONG JAMES CREEK CANAL.

James Creek Canal extends from G street to the Eastern Branch, but it is now navigable only to L street. On account of a sewer being laid across the canal at L street the leases for space above that point were vacated and filling is now in progress between G and L streets. When the proposed dike on the line of N street in connection with the sewage-disposal system is built, navigation will be closed above that point, which will leave very little of the canal available for commercial use. It is now used by dealers in wood and building materials, and when it is withdrawn from such use the businesses now accommodated will have to find other wharfage facilities.

WHARVES ALONG THE ANACOSTIA RIVER.

This frontage is believed to be where the expansion of river business must be taken care of. The United States Government is engaged in dredging a channel from the Potomac River along the Eastern Branch to the navy-yard, which will make all of the frontage of the city along the Eastern Branch available for wharves. At present there are three pieces of wharf property leased by the District on this frontage, and these at points where streets intersect the river. The title to the balance of the frontage has never been definitely settled, and until it is the development of this section of the water front will be retarded. The wharf committee believes that authority should be obtained from Congress for the institution of legal proceedings against all claimants along this frontage to determine their rights, and if it is found that private riparian rights do exist they should be acquired by the United States, in order that this frontage can be placed on the same plane as the frontage along the Washington channel. There is more demand for wharf facilities than can be supplied with the present limited area of the Washington channel. Your committee believes that all wharf property should be under governmental control, which is the modern tendency in cities.

Very respectfully,

J. R. SUTTON,
W. J. DOUGLAS,
D. E. GARGES,
Wharf Committee.

Capt. JAY J. MORROW,
Corps of Engineers, U. S. Army.
Engineer Commissioner, District of Columbia.

List of wharf property under lease June 30, 1907.

POTOMAC RIVER FRONT.

Name of lessee.	Location.	Expires.	Water frontage.	Area.	Rental per year.
			Feet.	*Sq. feet.*	
William Neitzey	Section 3, structure 23	Mar. 15, 1908	18	612	$30
Potomac Gunning and Fishing Club.	Section 2, structure between 42 and 43 with right of way over 41.	do	36	1,060	40
Lewis E. Rauterberg	Section 2, structure 20, with right of way over 17.	do	40	440	60
William A. Ragan	Section 3, structure 22	do	18	900	60
Jas. E. Nicholson and W. C. Freeman.	Section 2, structures 36 to 38, inclusive.	do	20	1,960	100
Edward J. Gardner	Section 3, structure 21	Oct. 1, 1907	20	540	100
Edward M. Willis	Section 3, property at foot of Thirteen-and-a-half street sw., opposite square southeast of 267.	Mar. 15, 1912	330	35,000	400
Norfolk and Washington Steamboat Co.	Section 1, structures 41 to 57, inclusive.	do	220	17,000	1,200
Independent Steamboat and Barge Co.	Section 1, structures 26 to 30, inclusive.	Oct. 1, 1912	120	7,000	300
Stephenson Bros	Section 2, structures 1 to 10, inclusive.	Feb. 1, 1912	300	59,900	900
Norfolk and Washington Steamboat Co.	Section 1, structures 60 and 65 to 72, inclusive.	Jan. 1, 1912	190	35,600	1,500
Johnson & Wimsatt	Section 3, structures 5 to 11, inclusive.	Mar. 15, 1913	190	43,500	900
Gustave W. Forsberg	Section 2, structures 22 to 33, except 24.	Mar. 15, 1908	156	18,000	500
John Miller	Section 3, structures 24 to 27, inclusive.	do	200	26,600	300
Wm. A. Wimsatt and Wm. A. H. Church.	Section 2, structures 34 and 35	do	80	18,000	300
J. Harrison Johnson	Section 3, structures 12 to 20, inclusive.	do	168	38,000	750
William W. Riley	Section 2, structures 99 to 117, inclusive; section 3, structures 1 to 4, inclusive.	do	460	117,800	1,200
American Ice Co	Section 2, structures 54 to 67, except 59; also structures 78 to 88.	do	496	102,100	2,500
Conrad F. Bennett	Section 2, structures 89 to 97	do	54	7,500	200
William A. Wimsat	Section 2, structures 43 to 53 and 59 to 61½.	do	140	25,200	400
Edward A. Cumberland	Section 2, structures 39 and 40	do	30	1,320	60
George A. Tasker	Section 2, structures south of 41	Apr. 1, 1908	18	.....	30
Henry A. Cole	Section 2, structure 41	Apr. 15, 1908	18	.....	30
Mount Vernon and Marshall Hall Steamboat Co.	Section 1, structures 59 and 61 to 64	Mar. 15, 1908	125	10,900	600
Washington and Potomac Steamboat Co.	Section 1, structures 31 to 37; section 2, structures 11 to 21, including 17½.	Mar. 1, 1908	330	43,600	1,050
Carter & Clark	Section 2, structures 70, 70½, 71, 74, 75, 76, 77.	May 1, 1908	280	45,800	750
Total			3,777	612,532	14,260

ANACOSTIA RIVER FRONT.

Warren F. Brenizer	Opposite square south of square 744		132.2	.....	$132
Thos. W. Smith	Opposite square south of square 741		132.2	.....	132
Thomas Tole	West side Anacostia Bridge		40	.....	40
Alfred Richards Brick Co.	Foot of Q street se		127	.....	120
Harry D. Bailey	North side, east Anacostia Bridge		30	.....	30
Total			461.4	.....	454

List of wharf property under lease June 30, 1907—Continued.

JAMES CREEK CANAL.

Name of lessee.	Parcel number.	Expires.	Water frontage.	Area.	Rental per year.
			Feet.	*Sq. feet.*	
Columbia Granite and Dredging Co	16	Monthly	670	60,300	$334.92
Do	17	Monthly	350	14,000	175.00
Applestein & Rosenburg	6	July 1, 1908	75	3,750	93.75
Henry Wolf	15	Monthly	175	12,250	87.60
Potomac Dredging Co	8	July 1, 1908	310	31,000	387.50
Lewis Jefferson	9	do	100	9,000	75.00
Carter & Clark	4	do	75	3,500	56.25
Do	5	do	97	8,000	72.75
Do	11	do	103	8,000	77.25
Robert Murphy	1,3	do	445	35,600	173.50
Total			3,273	185,400	1,533.52

REPORT OF THE CHIEF CLERK.

WASHINGTON, D. C., *September 1, 1907.*

SIR: I have the honor to submit the following report for the fiscal year ended June 30, 1907:

The work of the clerical force of the engineer department, as now distributed, and with the changes of methods contemplated in the near future and already approved, seems to obtain very satisfactory results, and the work of this branch of the service has been maintained at a standard comparing favorably with past years.

The work of the record division has been of the usual routine character with the natural increase anticipated. This division has been gradually brought up to modern methods of indexing by the card system and is in good working order, although the work has been seriously hampered by the long-continued illness of its head—a veteran employee of the department.

The number of communications received exceeded 14,000, and these have all been acknowledged, briefed, and properly recorded. Nearly 100,000 indorsements, memoranda of reference, and reports have been recorded on these communications, and in addition some 5,000 letters and orders have been prepared.

The preparation and filing of all contracts made with the District of Columbia constitutes one of the important duties of this division, and 209 copies of such contracts were drawn during the year. It is strongly recommended that authority be given for the institution of a complete modern card index for these contracts to take the place of the book system now prevailing. I am now making investigation along this line and will be prepared to submit estimates within a short time. The expense will be comparatively small to the advantages resulting. Another card system urged for this division is one for the expiring retents on contracts, which it is believed can be inaugurated with small expense.

Over 10,000 vouchers for payments on account of contract work were prepared by the record division and forwarded to the auditor's office after being properly certified.

The anticipated change of quarters to the new District building is delaying some of the changes in office practice which I have in mind, and these will be perfected by the time the office is moved. The institution of steel file cases with dust-proof covering for the records of the engineer department is one of the important features hoped to be accomplished in the new building.

Schedules of bids received during the fiscal year for work and materials furnished and statements of contracts for street improvements, sewers, buildings, construction material, supplies, and miscellaneous work are herewith.

Very respectfully,

DANIEL E. GARGES,
Chief Clerk, Engineer Department, District of Columbia.

Capt. JAY J. MORROW,
Corps of Engineers, U. S. Army,
Engineer Commissioner, District of Columbia.

Statement of expenditures from general appropriations for forage, horses, wagons, carts, etc.

[In accordance with act of Congress approved April 27, 1907.]

Cleaning and repairing sewers and basins	$2,843.62
Main and pipe sewers	368.74
Suburban sewers	795.57
Arizona avenue sewer	16.10
Falls Branch sewer	71.95
Outfall sewer	452.34
Elimination of grade crossings	64.77
Assessment and permit work	592.74
Northwest section	10.54
Southwest section	18.00
Southeast section	33.00
Northeast section	33.00
Grade and improve Massachusetts avenue extended	10.00
Grade and improve Connecticut avenue extended	20.00
Grade and improve Lincoln road	3.62
Grade and improve Pennsylvania avenue extended	5.00
Grade and improve Nichols avenue	5.00
Pave T street, North Capitol to First	10.00
Pave Thirteenth street, Clifton to Euclid	8.00
Grade Girard street	5.00
Pave Massachusetts avenue, Sheridan circle to S street	10.00
Grade and improve Massachusetts avenue, S to Belmont	6.00
Grade and improve Rhode Island avenue	10.00
Grade Sixteenth street extended	10.00
Lanier place	5.00
Monroe and Thirteenth streets	6.81
Massachusetts avenue extended	5.00
Repairs to streets	261.00
Repairs to county roads	34.00
Construct and repair bridges	55.27
Piney Branch Bridge	19.99
K street Bridge	19.93
Anacostia Bridge	35.88
Parking commission	1,615.56
Repairs to schools	387.38
Repairs to police stations	21.82
Repairs to engine houses	43.64
General expenses, water department	555.77
High service	4,440.35
Public pumps	274.56
Total	13,184.95

Statement of contracts for construction of sewers, 1907.

No.	Date.	Name of contractor.	Location.	Character of work.
	1906.			
3741	June 26	R. J. Beall Construction Co.	Pennsylvania avenue between Thirteenth and Fourteenth and Thirteen-and-a-half street between Pennsylvania avenue and C.	Construct 700 feet of 24-inch and 300 feet of 12-inch pipe sewer.
3742	June 27	E. G. Gummel.....	Rosedale street between Eighteenth and Nineteenth, Eighteenth between Rosedale and Benning ne.	Construct complete 760 feet of 4-foot diameter sewer.
3819	Sept. 8	.....do.....	Second street sw. between Canal and Maryland avenue.	Construct complete 220 feet of 24-inch and 335 feet of 18-inch diameter sewer.
3820	Aug. 29	Jas. A. Coyle.....	Twentieth street nw. between Klingle and Pierce Mill road and Nineteenth street between Park road and Newton street, and in Park road between Nineteenth and Klingle road.	Construct complete pipe sewers of various sizes.
3826	Sept. 8	E. G. Gummel.....	Park place nw. between Lamont street and Park road.	Construct 390 feet of 2.50 by 3.75 foot sewer.
3841	Aug. 24	.....do.....	Water street sw. between Seventh and Fourteenth.	Construct 1,450 feet of 21-inch and 1,950 feet of 24-inch pipe sewer.
3862	Oct. 6	Lyons & Knott.....	.....	Construct 3-foot 6-inch and 3-foot 3-inch sewer in Brightwood avenue between Florida avenue and W street, and in W street between Brightwood avenue and Sixth street.
3867	Oct. 10	E. G. Gummel.....	.....	Construct 285 feet of 3-foot and 355 feet of 2½-foot sewer.
3868	Oct. 22	L. R. Colbert and Michael McNamara.	Arizona avenue between Tunlaw and Loughboro roads, Macomb street between Arizona avenue and Idaho avenue, in Idaho avenue between Macomb and Woodley street, and in Woodley street between Idaho avenue and Thirty-eighth.	Construct 2,270 feet of 24-inch sewer, 3,600 feet of 21-inch sewer, and 2,360 feet of 15-inch sewer.
3885	Nov. 14	E. G. Gummel.....	Valley of Falls Branch between Conduit road and Massachusetts avenue.	Construct 730 feet of 2-foot 6-inch sewer and 4,640 feet of 24-inch sewer.
3892	Dec. 6	The Warren F. Brenizer Co.	South Railroad avenue between Pennsylvania avenue and Nailor street and in Nailor street between South Railroad avenue and Eastern Branch.	Construct 1,420 feet of 24-inch and 500 feet of 18-inch pipe sewer.
			Nailor street between South Railroad avenue and Minnesota avenue, and in Minnesota avenue between Nailor and Twenty-third streets, and in Twenty-third street between Minnesota avenue and Nailor street.	Construct 1,140 feet of 15-inch, 1,160 feet of 12-inch, and 220 feet of 10-inch pipe sewer.
			Minnesota avenue between Harrison and Eighteenth streets.	Construct 1,700 feet of 12-inch pipe sewer.
3896	Dec. 22	E. G. Gummel.....	Squares 4065-4064 in Oates street and in West Virginia avenue ne. between Oates street and Mount Olivet road.	Construct 745 feet of 7-foot diameter sewer.
	1907.			
3903	Mar. 13	Warren F. Brenizer Co.	South Capitol street, connecting section between B street and New Jersey avenue sewer and old Tiber sewer.	Construct 70 feet of 15 by 17 foot section, 75 feet of 14 by 15 foot section, and 50 feet of 9-foot 6-inch by 12-foot section.
3907	Apr. 24	James A. Coyle.....	Eighteenth street ne. between B and East Capitol streets, and East Capitol street between Sixteenth and Eighteenth.	Construct pipe sewers of various sizes.

Statement of contracts for construction of sewers, 1907—Continued.

No.	Date.	Name of contractor.	Location.	Character of work.
	1907.			
3913	May 2	E. G. Gummel.....	Kendall street ne. between Gallaudet and Capitol avenues and in Capitol avenue and Mount Olivet road between Kendall street and West Virginia avenue.	Construct 765 feet of 6-foot sewer and 343 feet of 7-foot sewer.
3914	May 4	R. J. Beall Construction Co.	Benning road between Eighteenth and Nineteenth.	Construct 4-foot and 3-foot 6-inch diameter sewer.
			Zoological Park between Adams Mill road and Rock Creek.	Construct 2-foot 6-inch diameter sewer.
			Sixth street nw. between H and I and I street nw. between Sixth and Seventh.	Construct 21-inch diameter pipe sewer.
3925	July 5	E. J. Cartright.....	From Thirtieth and M streets ne. to Nineteenth and C streets ne.	Construct 7,080 feet of 4-foot 6-inch diameter sewer in alleys and streets between limits.
3929	June 10	Warren F. Brenizer Co..	Second street nw. between Florida avenue and U and U street nw. between Second and Flagler place.	Construct 1,060 feet of 3-foot 9-inch sewer and 710 feet of 3 foot 3-inch diameter sewer.
3930	June 29	E. G. Gummel.....	Brightwood avenue from Shepherd road northward.	Construct 780 feet of 12-inch pipe sewer.
			Twentieth street nw. between M street and New Hampshire avenue.	Construct various sizes pipe sewers.
			Seventh street ne. between Massachusetts avenue and East Capitol street.	Do.
			Morris road (Anacostia), Spring street, and Bryan place.	Do.
3931	June 28	Lyons Bros.....	Q street se. between Twenty-third and Twenty-fifth.	Construct 640 feet of 12-inch pipe sewer.
3932	June 29	Cranford Paving Co....	Valley of Foundry Branch between Potomac River and Washington Aqueduct property.	Construct 300 feet of 9-foot diameter sewer.
3933	....do...	Jas. A. Coyle.....	Valley of Falls Branch between Massachusetts avenue and River road.	Construct 5,700 feet of 18-inch pipe sewer.
3941	July 5	Warren F. Brenizer Co.	Seventeenth and B streets nw.	Construct 93 feet of 7-foot sewer connection.
3942	....do...	.....do.....	Tenth and B streets nw.....	Construct connecting section of B street and New Jersey avenue trunk sewer.

Statement of construction, hauling, and miscellaneous contracts for fiscal year 1907.

No.	Date.	Name of contractor.	Description.
	1906.		
3746	July 12	Merchants Transfer and Storage Co..	Hauling cast-iron water pipe.
3750	July 14	Ambrose B. Stannard, New York City.	Construct public convenience station No. 2.
3751	July 9	G. B. Mullin	Unload and haul broken stone.
3752	June 23	Matthew Myers	Grade and regulate Anacostia streets.
3753	July 17	M. B. Casey & Co	Construct plumbing work public convenience station No. 2
3756	Aug. 30	R. G. Hoag & Co., Philadelphia, Pa..	Cast-iron galleries, etc., at pumping station, Bryant street.
3757	....do...	G. B. Mullin	Grade and regulate various streets, etc.
3759	Aug. 6	Dunigan Plumbing Co	Repair and change plumbing in Corcoran school building.
3760	Aug. 3	American Encaustic Tiling Co	Vitreous floor tile for pumping station, Bryant street.
3767	July 10	Stewart & Bratton	Construct 3 concrete bridges.
3770	Aug. 10	L. N. Simpson	Grade Girard street.
3771	July 20	Wm. Rothwell & Son	Plumbing work, Lenox School.
3772	June 21	J. J. McCann	Sewer and water connections 2928 Brightwood avenue.
3773	....do...	.....do	Sewer and water connections 712 and 714 Farragut street.
3774	June 1	Alexandria Iron Works, Alexandria, Va.	Fireproof stairways public schools.
3782	Aug. 11	Washington Asphalt Block and Tile Co.	Lay asphalt block pavement.
3784	Aug. 17	Dunigan Plumbing Co	Repair and change plumbing in M street High School.
3814	Aug. 11	M. B. Casey & Co	Repair and change plumbing in Phelps School.
3815	....do...	.....do	Repair and change plumbing in Tyler School.
3818	Aug. 15	Washington Gas Light Co	Furnish gas and light lamps east of Rock Creek.
3827	Aug. 28	Horace W. Clark	Cast-iron covers for meter boxes.
3830	July 28	Panly Jail Building Co	Construct cell work and plumbing east wing of workhouse for males.
3831	Aug. 8	R. J. Beall Construction Co	Construct concrete columns for east wing of workhouse for males.
3835	Sept. 18	G. & W. Manufacturing Co	Furnish and deliver brass stopcocks.
3837	Sept. 4	Gilbert D. Emerson	Binding books for Free Public Library.
3838	Aug. 17	Littlefield, Alvord & Co	Hauling to and from property yards.
3842	Aug. 6	Hersey Manufacturing Co	Furnish and deliver water meters.
3844	Aug. 14	V. Clad & Sons	Refrigerators for kitchen at Home for Aged.
3846	July 31	Chapman Valve Manufacturing Co...	Furnish water valves.
3849	Sept. 13	Potomac Electric Power Co	Furnish and maintain incandescent street lights.
3853	Aug. 24	Dunigan Plumbing Co	Repairs and changes to plumbing in south wing of new workhouse.
3856	Sept. 26	.....do	Repairs and changes to plumbing in Jones School.
3857	Oct. 3	G. B. Mullin	Grade and improve Connecticut avenue north of Pierce Mill road to Chappelle road.
3858	Sept. 15	Fabric Fire Hose Co	Furnish fire hose.
3859	Sept. 28	Combination Ladder Co	Furnish combination engine and hose wagon.
3860	Aug. 20	Union Lighting Co	Operate and maintain naphtha street lighting.
3861	Sept. 19	American La France Fire Engine Co..	Furnish steam fire engine and equipment.
3863	....do...	The Gutta Percha and Rubber Manufacturing Co., New York City.	Furnish rubber fire hose.
3865	Oct. 16	M. B. Casey & Co	Repair and change plumbing in Harrison School.
3866	Oct. 10	James J. Overn	Construct bridge over Rock Creek on line of K street, between Twenty-eighth and Twenty-ninth.
3870	Oct. 12	Jos. Kaufman & Son, Baltimore, Md.	Furnish and deliver horses for fire department.
3873	Nov. 1	R. S. Blome Co	Lay cement sidewalks.
3874	Oct. 26	North Penn Iron Co	Construct railing for Connecticut Avenue Bridge over Rock Creek.
3875	Nov. 5	A. Dean & Co	Dredging in Anacostia River opposite sewerage pumping station.
3877	Oct. 26	National Electrical Supply Co	Place pump and motor in Industrial Home School.
3878	Sept. 25	J. W. Craw Laundry Machinery Co..	Laundry machinery at Home for Aged.
3879	Nov. 15	L. N. Simpson	Grade Rhode Island avenue between Thirteenth and Queens Chapel road.
3887	Nov. 26	American Street Lighting Co, Baltimore, Md.	Operate and maintain incandescent street lamps.
3889	....do...	Eddy Valve Co., Waterford, N. Y....	Furnish and deliver water gates.
3890	Nov. 30	Washington Gas Light Co	Operate and maintain street lighting.
3893	Dec. 12	William Rothwell & Son	Remodel, etc., plumbing in Third precinct police station.
3895	Dec. 8	H. Mueller Manufacturing Co	Furnish curb and corporation cocks.

Statement of construction, hauling, and miscellaneous contracts for fiscal year 1907—Con.

No.	Date.	Name of contractor.	Description.
	1907.		
3897	Jan. 4	Elmer H. Catlin Co.	Install gas and electric fixtures in new police-court building.
3898	Jan. 16	J. L. Mott Iron Works.	Furnish and erect lamp-posts on Connecticut Avenue Bridge.
3899	Jan. 14	Zellers & Co.	Furnish side valve horizontal steam engine at Business High School.
3901	Mar. 5	W. E. Mooney.	Reconstruct stable in alley, square 367.
3905	Apr. 8	R. J. Beall Construction Co.	Lay cement sidewalks on K street ne. between First and Second; M street ne. at Delaware avenue; L street ne. between First and Second, and Florida avenue ne. between Second and Third.
3906	Apr. 3	Skinner Ship Building and Dry Dock Co.	Equip and reenforce the fire boat Firefighter.
3908	Apr. 15	Pavarini & Wyne (Incorporated).	Construct 8-room school building on Adams street between Harrison and Jackson streets, Anacostia.
3909	Apr. 20	Washington Asphalt Block and Tile Co.	Lay asphalt block pavement where ordered.
3910	May 3	The Cranford Paving Co.	Pave streets with sheet asphalt where ordered.
3911	May 2	Burgess & Parsons.	Construct chemical engine house on Minnesota avenue, between Hunt place and Sherwood avenue, Hillbrook.
3912	Apr. 29	Colburn Bros.	Lay cement sidewalks on Connecticut Avenue Bridge.
3915	Apr. 4	A. P. Smith Manufacturing Co.	Furnish and deliver fire hydrants.
3916	May 11	Pavarini & Wyne (Incorporated).	Erect tuberculosis hospital near Arkansas avenue, between Thirteenth and Fourteenth streets nw.
3918	May 1	George Nesline.	Grade Rhode Island avenue ne., east of Brentwood road.
3920	May 16	Brennan Construction Co.	Lay standard asphalt pavement.
3922	May 27	E. L. McClelland.	Construct bath houses and inclosures at bathing beach.
3923	May 11	Wm. E. Mooney.	Erect ornamental ventilation stack for public-convenience station No. 2.
3924	June 4	Colburn Bros.	Lay cement walks around sewerage-disposal system.
3926	June 19	Ben Einstein.	Remove Woodley Lane Bridge across Rock Creek.
3927	Apr. 16	Brennan Construction Co.	Resurface with sheet asphalt.
3928	June 11	Isaac T. Brown.	Collect miscellaneous refuse.
3934	June 28	Combination Ladder Co.	65-foot hook-and-ladder truck.
3935	....do....	Neptune Meter Co.	Furnish water meters.
3936	June 25	American La France Fire Engine Co.	Furnish 2 second-size double-acting steam fire engines and equipment.
3937	...do...	.....do.....	Furnish 1 chemical engine and equipment
3938	July 1	A. Zichtl & Co.	Rebind and repair records of old circuit court.
3943	July 8	Lynchburg Foundry Co.	Cast-iron meter box covers.
3944	....do....	Hersey Manufacturing Co.	Furnish water meters.
3945	June 28	G. & W. Manufacturing Co.	Casing covers.
3947	June 22	Combination Ladder Co.	Furnish 2 all-steel chemical and hose combination wagons.

Schedule of contracts for general supplies, fiscal year 1907.

No.	Date.	Name of contractor.	To furnish—
	1906.		
3743	July 10	S. D. Houck.	Saddlery.
3744	July 9	Conrad Becker.	Do.
3747	July 18	Harry Kaufman Co.	Boots, shoes, and dry goods.
3748	July 14	Church & Stephenson.	Lumber.
3754	July 28	Saml. Goldenberg.	Boots and shoes.
3785	Aug. 6	John P. Agnew & Co.	Fuel.
3762	Aug. 1	W. M. Galt & Co.	Forage.
3763	July 20	Martin Weigand.	Lumber.
3764	July 12	National Electrical Supply Co.	Electrical supplies.
3765	July 9	J. N. Van Ness Co.	Saddlery.
3766	July 18	T. R. Riley.	Lumber.
3768	July 17	Hoover & Denham.	Meats, etc.
3769	July 20	Wm. Hahn & Co.	Boots and shoes.
3778	July 23	Dulin & Martin Co.	Stationery and furniture.
3779	July 16	W. J. C. Dulany.	Stationery, school books, etc.
3780	July 25	H. G. & J. E. Wagner.	Clocks.

Schedule of contracts for general supplies, fiscal year 1907—Continued.

No.	Date.	Name of contractor.	To furnish—
	1906.		
3786	July 26	J. B. Lambie Co	Hardware.
3786	July 10	Cuyler & Mohler	Plumbers' materials.
3787	July 14	E. J. Pullman	Photographic supplies.
3788	July 18	Harvard Laundry Co	Laundry work.
3789	July 16	Stockett-Fiske Co	Stationery.
3790	Aug. 3	Martin L. Horn	Dry goods.
3791	July 21	Blum Bros	Dry goods, etc.
3792	July 26	H. P. Pillsbury	Hardware.
3793	Aug. 1	Fred A. Schmidt	Stationery, etc.
3794	July 17	W. J. McNally	Stationery.
3795	July 26	W. L. King	Saddlery.
3796	July 23	Josephus Wells	Groceries.
3797	Aug. 20	R. H. Macy & Co	Dry goods.
3798	July 12	Prang Educational Co	Stationery, etc.
3799	July 18	Albert Kahlert & Co	Furniture.
3800	July 26	Rudolph & West Co	Hardware.
3801	July 11	Lewis Hopfenmaeir	Plumbers' supplies.
3802	July 16	W. M. Galt & Co	Groceries.
3803	July 13	H. A. Linger, jr	Furniture.
3804	July 17	G. E. Howard	Printing.
3805	Aug. 1	S. N. Meyer	Flags, etc.
3806	July 31	Jas. S. Cotton	Laundry.
3807	July 25	W. J. Zeh Co	Fuel.
3808	July 16	J. Edw. Nunn	Stationery.
3809	July 14	Armour & Co	Meats.
3810	July 12	H. T. Jones & Co	Saddlery.
3811	July 11	Globe Printing Co	Printing.
3812	July 27	Lamb & Tilden	Rubber stamps.
3813	Aug. 10	Louis Hartig	Hardware, etc.
3816	July 14	R. C. Ballantyne	Stationery, etc.
3817	July 23	Mackall Bros	Drugs.
3821	July 18	Judd & Detweiler	Printing.
3822	July 25	Columbia Photo Supply Co	Photo supplies.
3823	Aug. 17	W. T. Galliher & Bro	Lumber.
3824	Aug. 16	Emma P. Hume	Groceries.
3825	July 23	Z. D. Gilman	Drugs.
3828	Aug. --	Thos. Somerville	Plumbers' supplies, etc.
3829	July 10	E. J. Murphy Co	Glass, paints, and varnish.
3832	Aug. 7	Geo. F. Muth & Co	Glass, paints, varnish, etc.
3834	Aug. 22	T. W. Smith	Lumber.
3836	Aug. 6	R. P. Clarke Co	Dry goods.
3839	Aug. 7	N. T. Elliott Printing Co	Printing.
3840	July 27	Chas. White, jr	Miscellaneous castings.
3847	July 25	Swift & Co	Groceries and meats.
3850	Aug. 18	Margaretha Johnson	Fuel.
3851	July 28	R. P. Andrews Paper Co	Stationery.
3852	Aug. 29	Standard Oil Co	Glass, paints, and varnish.
3854	Sept. 6	W. B. Moses & Sons	Furniture.
3855	Aug.	Woodward & Lothrop	Furniture etc.
3864	Oct. 2	National Mortar Co	Cement and mortar.
3871	Oct. 16	Milton Bradley Co	Stationery, etc.
3880	Oct. 19	J. C. Ergood & Co	Groceries.
3881	Aug 6	Chas G. Stott & Co	Drugs.
3882	Nov 18	Lutz & Co	Saddlery, etc.
3883	July 26	Vienna Pressed Yeast Co	Groceries.
3884	July 13	Lansburgh & Bro	Dry goods.
3886	July 26	J. Edw. Chapman	Fuel.
3888	July 13	American Ice Co	Ice.
3891	Nov. 26	Hugh Reilly	Glass, paints, etc.

Statement of contracts for construction material for fiscal year 1907.

No.	Date.	Name of contractor.	Description.
	1906.		
3745	July 11	Standard Brick Co	Red sewer bricks.
3749	July 20	Washington Asphalt Block and Tile Co	Paving blocks.
3755	July 14	Jas. M. Porter, Pittsburg, Pa	Vitrified paving blocks.
3775	July 28	Atlas Portland Cement Co	Portland cement.
3776	July 18	Reynoldsville Brick and Tile Co	Sewer invert brick.
3777	July 20	Lamond Bros	Invert blocks.
3781	Aug. 6	M. J. Drummond & Co	Cast-iron water-pipe specials.
3783	Aug. 13	Chesapeake and Potomac Telephone Co	Cables, underground combination.
3833	Sept. 20	Lynchburg Foundry Co	Furnish 600 tons 8-inch cast-iron water pipe.
3843	Sept. 8	Mack Manufacturing Co	Terra-cotta sewer pipe.
3845	Aug. 9	Standard Underground Cable Co	Cables, underground combination.
3848	Aug. 6	Potomac Dredging Co	Sand and gravel.
3869	Oct. 9	Mack Manufacturing Co	Terra-cotta sewer pipe.
3872	Oct. 24	American Sewer Pipe Co	Do.
3876	Oct. 9	Bragdon, Fernald & Gordon, Franklin, Me	Granite curbing.
3894	Dec. 6	Lehigh Portland Cement Co	Portland cement.
	1907.		
3900	Feb. 23	Lynchburg Foundry Co	Cast-iron water pipe.
3902	Feb. 27	M. J. Drummond & Co	Do.
3904	Apr. 3	Potomac Dredging Co	Sand and gravel.
3917	May 10	The Chesapeake and Potomac Telephone Co	Underground combination cables.
3919	....do...	Lynchburg Foundry Co	Cast-iron water pipe.
3921	May 15	Lamond Bros	Terra-cotta pipe.
3938	June 25	Pine Mountain Granite Co	Granite curbing.
3939	June 24	American Sewer Pipe Co	Terra-cotta sewer pipe.
3946	June 27	New Washington Brick Co	Red sewer brick.
3949	June 22	Lehigh Portland Cement Co	Portland cement.

Schedules of proposals for sewer in Water street sw. between Seventh and Fourteenth streets; opened August 6, 1906.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	21-inch diameter pipe (per linear foot).	24-inch diameter pipe (per linear foot).	Total cost.
E. G. Gummel	$1.10	$16.00	$1.15	$1.25	$11,735.00
Jas. A. Coyle	1.80	18.00	1.50	1.60	17,535.00

Schedule of proposals for constructing sewer in Park place between Lamont street and Park road; opened August 13, 1906.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic (yard).	Vitrified brick masonry (per cubic yard).	Invert blocks (per cubic yard).	Concrete masonry "D" (per cubic yard).	Total cost.
E. G. Gummel	$0.97	$15.00	$18.00	$1.00	$8.00	$2,636.25
J. A. Coyle	.90	16.00	24.00	1.10	8.00	2,709.50

Schedule of proposals for sewer construction; opened August 20, 1906.

SEWER A.

[Twentieth street nw. between Klingle road and Pierce Mill road, Park road between Klingle and Nineteenth street, and Nineteenth street between Park road and Newton street.]

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	24-inch pipe (per linear foot).	21-inch pipe (per linear foot).	18-inch pipe (per linear foot).	12-inch pipe (per linear foot).	Total cost.
E. G. Gummel	$1.00	$16.00	$1.35	$1.25	$1.15	$0.90	$3
Jas. A. Coyle	.80	16.00	1.30	1.20	1.10	.80	2
R. J. Beall Construction Co	1.30	16.50	1.60	1.50	1.35	1.15	3
Lyons Bros	.95	16.00	1.38	1.35	1.27	1.10	3
Stewart & Bratton	1.00	18.00	1.50	1.25	1.00	.75	3

Schedule of proposals for sewer construction; opened August 20, 1906—Continued.

SEWER B.

[Block 17, Howard University subdivision and in Adams street between Second street and block 17, Howard University subdivision.]

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	15-inch pipe (per linear foot).	12-inch pipe (per linear foot).	Total cost.
E. G. Gummel	$1.00	$16.00	$1.00	$0.85	$1,705.00
Jas. A. Coyle	.75	16.00	.95	.70	1,404.00
R. J. Beall Construction Co	1.50	16.50	1.25	1.10	2,327.50
Lyons Bros	1.10	16.00	1.15	1.10	1,955.50
Stewart & Bratton	1.25	18.00	.80	.60	1,758.50

SEWER C.

[Second street between Canal street and Maryland avenue.]

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	24-inch pipe (per linear foot).	18-inch pipe (per linear foot).	Total cost.
E. G. Gummel	$1.00	$16.00	$1.25	$1.10	$1,559.50
Jas. A. Coyle	1.25	18.00	1.60	1.25	1,893.75
R. J. Beall Construction Co	1.15	15.50	1.45	1.35	1,792.75
Lyons Bros	1.25	16.00	1.38	1.27	1,830.05
Stewart & Bratton	2.00	18.00	1.50	1.00	2,343.00

Schedule of proposals for constructing sewer in Brightwood avenue between Florida avenue and W street, and in W street, between Brightwood avenue and Sixth street.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Vitrified brick masonry (per cubic yard).	Concrete masonry "D" (per cubic yard).	Total cost.
Lyons & Knott	$1.40	$18.00	$21.00	$8.15	$10,563.75
E. G. Gummel	1.50	18.00	22.00	8.50	11,158.50

Schedule of proposals for constructing sewer in Seventh street between E and G streets sw.; opened September 20, 1906.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Vitrified brick masonry (per cubic yard).	Concrete masonry "D" (per cubic yard).	Total cost.
E. G. Gummel	$1.50	$17.00	$20.00	$8.00	$4,772.00
Edmund Saxton	1.70	15.00	20.00	8.00	5,020.00

Schedule of proposals for constructing Arizona avenue sewer; bids opened October 2, 1906.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Rock excavation (per cubic yard).	24-inch diameter pipe (per linear foot).	21-inch diameter pipe (per linear foot).	15-inch diameter pipe (per linear foot).	Total cost.
Colbert & McNamara	$0.99	$16.00	$3.50	$1.06	$0.91	$0.76	$17,592.80
John F. Talbert	.70	20.00	4.00	1.40	1.17	1.00	.....
The Warren F. Brenizer Co	.98	20.00	3.50	1.49	1.41	1.11	.....
Stewart & Bratton	1.00	18.00	5.00	1.50	1.25	1.00	.....
E. G. Gummel	1.00	23.00	3.00	1.75	1.56	1.25	.....

Schedule of proposals for constructing sewer in Valley of Falls Branch between Conduit road and Massachusetts avenue; received October 18, 1906.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Rock excavation (per cubic yard).	Concrete masonry "D" (per cubic yard).	Embankment (per cubic yard.)	24-inch diameter pipe (per linear foot).	Total cost.
E. G. Gummel	$1.25	$23.00	$3.00	$8.78	$0.75	$1.75	$17,960.60
J. F. Talbert	1.82	25.00	4.00	12.00	1.82	1.82	22,517.80

Schedule of proposals for constructing sewers in South Railroad avenue between Pennsylvania avenue and Naylor street and in Naylor street between South Railroad avenue and Eastern Branch; opened November 27, 1906.

SEWER A.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	24-inch diameter pipe (per linear foot).	18-inch diameter pipe (per linear foot).	Total cost.
The Warren F. Brenizer Co	$0.57	$13.80	$1.15	$0.93	$3,289.60
John F. Talbert	.69	20.00	1.23	.98	3,718.60
L. R. Colbert	.99	19.00	1.29	1.09	4,386.80
Edmund Saxton	1.23	16.00	1.40	1.00	4,894.00
E. G. Gummel	1.50	18.00	1.25	1.00	5,191.00

Schedule of proposals for constructing sewers in Naylor street between South Railroad avenue and Minnesota avenue, and in Minnesota avenue between Naylor street and Twenty-third street, and in Twenty-third street between Minnesota avenue and Naylor street; opened November 27, 1906.

SEWER B.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	15-inch diameter pipe (per linear foot).	12-inch diameter pipe (per linear foot).	10-inch diameter pipe (per linear foot).	Total cost.
The Warren F. Brenizer Co	$0.74	$13.80	$0.87	$0.78	$0.71	$4,511.20
Jno. F. Talbert	.79	20.00	.73	.69	.63	4,543.20
L. R. Colbert	.99	19.00	.99	.89	.79	5,638.80
Edmund Saxton	1.28	16.00	.85	.65	.55	5,876.00
E. G. Gummel	1.50	18.00	.90	.75	.65	6,743.00

Schedule of proposals for constructing sewers in Minnesota avenue between Harrison and Eighteenth streets; opened November 27, 1906.

SEWER C.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	12-inch diameter pipe (per linear foot).	Total cost.
The Warren F. Brenizer Co	$0.69	$13.80	$0.78	$2,223.00
John F. Talbert	.93	20.00	.89	2,736.00
L. R. Colbert	.99	19.00	.89	2,792.00
Edmund Saxton	1.23	16.00	.65	2,618.00
E. G. Gummel	1.40	18.00	.75	2,995.00

Schedule of proposals received December 3, 1906, for constructing Ivy City trunk sewer.

Bidder.	Ordinary excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Vitrified brick masonry (per cubic yard).	Concrete masonry "B" (per cubic yard).	Concrete masonry "C" (per cubic yard).	Total cost.
E. G. Gummel	$0.82	$16.00	$22.00	$8.50	$8.00	$40,358.00
Charles Knott	.80	16.00	20.00	9.00	8.50	40,631.00
Edmund Saxton	1.04	14.80	20.50	9.20	8.60	44,497.00
The Warren F. Brenizer Co	1.10	14.00	22.00	7.75	7.50	42,696.00
L. R. Colbert	1.20	19.00	22.00	12.00	11.00	54,060.00
Sullivan Bros.	1.34	12.29	19.71	7.28	6.77	43,946.50
Lyons Bros.	1.79	18.00	23.00	10.00	10.50	59,817.00

Schedule of proposals for constructing connection section of B street and New Jersey avenue trunk sewer at South Capitol street where it crosses old Tiber sewer.

Bidder.	Ordinary excavation (per cubic yard).	Red brick masonry (per cubic yard).	Vitrified brick masonry (per cubic yard).	Concrete masonry "B" (per cubic yard).	Concrete masonry "C" (per cubic yard).	6-inch diameter pipe (per linear foot).	Total cost.
The Warren F. Brenizer Co.	$1 85	$14 00	$24.00	$9 40	$9 00	$0.30	$21,158.50
R. J. Beall Construction Co	2 50	18 00	25 00	9 45	9 20	.30	24,798.00
E. G. Gummel	7.00	30.00	40.00	15 00	14 00	1 00	54,675.00

Schedule of proposals for constructing sewers; bids opened April 12, 1907.

A.

[Bennings road ne. between Eighteenth and Nineteenth streets.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Vitrified brick masonry (per cubic yard).	Concrete masonry "D" (per cubic yard).	Total cost.
R. J. Beall Construction Co.	$1 05	$16.50	$21 75	$8 40	$2,019 45
E. J. Cartright	1.60	18 00	22 00	10 50	2,634 10
E. G. Gummel	1 40	22 00	27.00	10 00	2,563 40
Jas. A. Coyle	1.50	20 00	30 00	10 00	2,666 50
Lyons Bros.	1.70	19 00	24 00	10 00	2,713 70

B.

Eighteenth street ne. between B and East Capitol streets, and East Capitol street between Sixteenth and Eighteenth streets.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	24-inch pipe (per linear foot).	18-inch pipe (per linear foot).	15-inch pipe (per linear foot).	12-inch pipe (per linear foot).	Total cost.
R. J. Beall Construction Co.	$0.78	$15.75	$1.34	$1.19	$1.08	$0.89	$4,832.50
E. J. Cartright	1.20	18.00	1.25	1.00	.90	.75	5,816.50
E. G. Gummel	1.15	19.00	1.25	1.00	.95	.90	5,819.50
Jas. A. Coyle	.78	16.00	1.20	1.10	.95	.79	4,588.00
Lyons Bros.	.95	16.00	1.30	1.15	1.10	.93	5,334.00

Schedule of proposals for constructing sewers; bids opened April 12, 1907—Continued.

C.

[Zoological Park between Adams Mill road and Rock Creek.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Frederick brick masonry (per cubic yard).	Concrete masonry "D" (per cubic yard).	Total cost.
R. J. Beall Construction Co	$1.50	$18.50	$24.00	$10.50	$2,091.50
E. J. Cartright	1.70	20.00	22.00	11.00	2,216.00
E. G. Gummel	1.50	22.00	25.00	12.00	2,224.00
Jas. A. Coyle	1.50	20.00	24.00	12.00	2,192.00
Lyons Bros	2.50	20.00	20.00	12.00	2,720.00

D.

[Sixth street nw. between H and I, and in I street between Sixth and Seventh streets.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	21-inch pipe (per linear foot).	Total cost.
R. J. Beall Construction Co	$0.95	$15.75	$1.30	$1,058.75
E. J. Cartright	1.40	18.00	1.30	1,304.00
E. G. Gummel	1.25	20.00	1.20	1,213.00
Jas. A. Coyle	1.50	20.00	1.80	1,542.00

Schedule of proposals for constructing a portion of the Ivy City trunk sewer, in Kendall street northeast between Gallaudet street and Capitol avenue, and in Capitol avenue and Mount Olivet road northeast between Kendall street and West Virginia avenue; received April 15, 1907.

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Vitrified brick masonry (per cubic yard).	Concrete masonry "B" (per cubic yard).	Concrete masonry "D" (per cubic yard).	Total cost.
E. G. Gummel	$0.70	$16.00	$22.00	$8.00	$8.00	$12,884.00
Jas. A. Coyle	1.10	19.00	28.00	10.00	9.50	16,732.50
Lyons Bros	1.10	18.00	25.00	11.50	11.25	17,707.75
R. J. Beall Construction Co	1.30	15.75	22.50	9.20	8.75	15,983.00
Edmund Saxton	1.30	15.00	21.00	9.60	9.00	16,052.00

Schedule of proposals for constructing sewer in Second street northwest between Florida avenue and U street, etc.; opened May 13, 1907.

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Frederick brick masonry (per cubic yard).	Concrete masonry "D" (per cubic yard).	Total cost.
The W. F. Brenizer Co	$1.07	$15.00	$18.00	$8.50	$13,291.00
E. G. Gummel	1.25	17.00	20.00	8.00	14,405.00
R. J. Beall Construction Co	1.40	15.50	19.25	9.70	15,993.75

Schedule of proposals for the construction of a portion of the east side intercepting sewer; opened May 27, 1907.

Bidder.	Excavation (per cubic yard).	Embankment (per cubic yard).	Sewer brick masonry (per cubic yard).	Vitrified brick masonry (per cubic yard).	Concrete masonry "D" (per cubic yard).	Piking.	Total cost.
E. J. Cartright	$0.90	$0.60	$16.00	$20.00	$8.00	$0.15	$66,320.00
Lyons Bros	.99	.65	17.00	22.00	8.75	.20	72,896.25
W. F. Brenizer Co	.60	.80	15.00	25.00	10.00	.35	77,650.00
E. G. Gummel	1.00	.75	19.00	23.00	10.00	.30	81,130.00

Schedule of proposals for constructing sewers; received June 20, 1907.

SEWER A.

[In Brightwood avenue from Shepherd road northward.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	12-inch diameter pipe (per linear foot).	Total cost.
E. G. Gummel	$0.81	$18.00	$0.71	$1,636.14
Lyons Bros	.98	18.00	.87	1,916.32
James A. Coyle	.89	18.00	.80	1,779.46
R. J. Beall Construction Co	1.10	19.00	1.05	2,185.40

SEWER B.

[Twentieth street nw., between M street and New Hampshire avenue.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	24-inch diameter pipe (per linear foot).	21-inch diameter pipe (per linear foot).	18-inch diameter pipe (per linear foot).	Total cost.
E. G. Gummel	$0.90	$16.00	$1.13	$1.00	$0.87	$2,383.62
Lyons Bros	.98	17.00	1.19	1.16	1.12	2,642.72
Jas. A. Coyle	1.50	20.00	1.30	1.20	1.10	3,455.20
R. J. Beall Construction Co	1.15	16.00	1.45	1.30	1.15	2,979.60

SEWER C.

[Seventh street ne., between Massachusetts avenue and East Capitol street.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	18-inch diameter pipe (per linear foot).	15-inch diameter pipe (per linear foot).	12-inch diameter pipe (per linear foot).	Total cost.
E. G. Gummel	$0.97	$17.00	$0.87	$0.77	$0.67	$2,163.68
Lyons Bros	1.39	18.00	1.14	1.00	.....	.....
Jas. A. Coyle	1.25	18.00	1.20	1.00	.90	2,758.25
R. J. Beall Construction Co	1.15	16.00	1.15	1.10	.90	2,578.85

SEWER D.

[Q street se., between Twenty-third and Twenty-fifth streets.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	12-inch diameter pipe (per linear foot).	Total cost.
E. G. Gummel	$1.00	$18.00	$0.69	$1,351.60
Lyons Bros	75	18.00	.93	1,313.70
Jas. A. Coyle	1.10	20.00	.90	1,578.60

Schedule of proposals for constructing sewers; received June 20, 1907—Continued.

SEWER E.

[Morris road (Anacostia), between Spring street and Bryan place.]

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	24-inch-diameter pipe (per linear foot).	21-inch diameter pipe (per linear foot).	18-inch diameter pipe (per linear foot).	15-inch diameter pipe (per linear foot).	Total cost.
E. G. Gummel	$1.15	$18.00	$1.12	$0.98	$0.85	$0.76	$2,400.05
Jas. A. Coyle	1.50	22.00	1.40	1.25	1.15	1.00	3,094.50

Schedule of proposals for constructing sewer in valley of Falls Branch; received June 20, 1907.

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Rock excavation (per cubic yard).	18-inch diameter pipe (per linear foot).	Total cost.
James A. Coyle	$0.80	$20.00	$3.00	$1.20	$13,840.00
E. G. Gummel	1.10	22.00	4.00	1.29	16,653.00
R. J. Beall Construction Co	1.44	19.50	4.50	1.35	19,110.00
Lyons Bros	1.20	18.00	4.00	1.28	16,996.00

Schedule of proposals received June 18, 1907, for constructing sewer in valley of Foundry Branch.

SECTION A.

Bidder.	Tunnel excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Vitrified sewer brick masonry (per cubic yard).	Concrete masonry "B" (per cubic yard).	Concrete masonry "D" (per cubic yard).	Total cost section A.
The Cranford Paving Co	$6.40	$19.50	$24.00	$9.50	$9.00	$17,262.50

SECTION B.

Bidder.	Excavation (per cubic yard).	Sewer brick masonry (per cubic yard).	Vitrified sewer brick masonry (per cubic yard).	Concrete masonry "B" (per cubic yard).	Rock excavation (per cubic yard).	Embankment (per cubic yard).	Total cost section B.
The Cranford Paving Co	$0.95	$16.50	$21.00	$8.20	$1.90	$0.30	$13,427.50

Proposals for furnishing terra-cotta sewer pipe and branches vitrified sewer invert blocks, and rectangular repressed vitrified sewer invert bricks; opened May 25, 1906.

Bidder.	24-inch.	18-inch.	15-inch.	12-inch.	10-inch.	8-inch.	6-inch.
Thos. Somerville Co	$0.91	$0.48	$0.375	$0.28	$0.21	$0.14	$0.0825
Mack Manufacturing Co	.848	.443	.353	.261	.195	.155	.093
Wm. Wirt Clarke & Son	.936	.4896	.3888	.288	.216	.16	.096
Savage Fire Brick Co							
Clearfield Clay Working Co							
American Sewer Pipe Co	.936	.4896	.3888	.288	.216	.16	
Lamond Bros				.26	.19	.125	
Baltimore Terra Cotta Works	1.1068	.4743	.3762	.279	.2092	.155	
Federal Clay Products Co							
Auburn Shale Brick Co							

Proposals for furnishing terra-cotta sewer pipe and branches vitrified sewer invert blocks and rectangular repressed vitrified sewer invert bricks; opened May 25, 1906—Cont'd.

Bidder.	Y-branches.					Vitrified invert sewer block.	Vitrified invert sewer brick.	6-inch stoppers.
	18 by 6 inch.	15 by 6 inch.	12 by 6 inch.	10 by 6 inch.	8 by 6 inch.			
Thos Somerville Co	$2.07	$1.65	$1.22	$0.92	$0.63			
Mack Manufacturing Co	1.99	1.592	1.174	.887	.6525	$0.75	A–5 $16.59 B–7 17.59 C–6 15.09	
Wm. Wirt Clarke & Son	2.0655	1.647	1.215	.918	.675		18.15	$0.03
Savage Fire Brick Co							17.00	
Clearfield Clay Working Co							16.00	
American Sewer Pipe Co	2.0955	1.677	1.245	.948	.705			
Reynoldsville Brick and Tile Co							14.00	
Lamond Bros			1.125	.85	.56	.50		
Baltimore Terra Cotta Works	2.025	1.461	1.203	.916	.681			
Federal Clay Products Co							15.00	
Auburn Shale Brick Co							13.40	

Schedule of proposals for furnishing Portland cement; opened June 21, 1906.

Bidder.	First and Canal streets.		Baltimore and Ohio R. R.		Philadelphia, Baltimore and Washington R. R.		At Third street.
	Wood.	Sacks.	Wood.	Sacks.	Wood.	Sacks.	Wood.
National Mortar Co., "Vulcanite"	$1.92	$1.97	$1.88	$1.93	$1.88	$1.93	$1.92
Wm. Wirt Clarke & Sons, "Northampton"	2.04	2.07	1.98	2.01	1.98	2.01	2.04
The Atlas Portland Cement Co., "Atlas"	1.80	1.85	1.75	1.80	1.75	1.80	1.81
Lehigh Portland Cement Co., "Lehigh"	1.89	1.93	1.85	1.89	1.85	1.89	1.88

Schedule of proposals received October 1, 1906, to furnish terra-cotta pipe.

Bidder.	21-inch.	24-inch.
Mack Manufacturing Co. (Pennsylvania R. R.)	$0.88	$0.90
Mack Manufacturing Co. (Baltimore and Ohio R. R.)	.90	.92
American Sewer Pipe Co	.675	.8775

Schedule of proposals received May 15, 1907, for furnishing Portland cement.

Bidder.	Wood.				Sacks.		
	First and Canal streets.	Foot of Third street.	Philadelphia, Baltimore and Washington R. R.	Baltimore and Ohio R. R.	First and Canal streets	Philadelphia, Baltimore and Washington R. R.	Baltimore and Ohio R. R.
National Mortar Co	$1.79	$1.51	$1.75	$1.75	$1.52	$1.48	$1.48
Atlas Portland Cement Co	1.81	1.81	1.75	1.75	1.56	1.50	1.50
Lehigh Portland Cement Co	1.79	1.80	1.75	1.75	1.84	1.80	1.80

Schedule of proposals for furnishing Portland cement; opened November 12, 1907.

Bidder.	First and Canal streets.		Baltimore and Ohio R. R.		Philadelphia, Baltimore and Washington R. R.		Foot of Third street.	Brand.
	Wood.	Sacks.	Wood.	Sacks.	Wood.	Sacks.	Wood.	
Lehigh Portland Cement Co	$1.79	$1.84	$1.75	$1.80	$1.75	$1.80	$1.80	Lehigh.
Atlas Portland Cement Co	1.80	1.85	1.75	1.80	1.75	1.80	1.81	Atlas.
T. Edw. Clark	1.93	1.98	1.83	1.88	1.83	1.88	1.93	Edison.
Grove Lime and Coal Co	1.87	1.90	1.81	1.85	1.81	1.85	1.91	Alpha.
National Mortar Co	1.82	1.87	.....	.....	.....	.....	1.82	Old Dominion or Dragon.

Schedule of proposals received May 15, 1907, for furnishing natural cement.

Bidder.	First and Canal streets.	Philadelphia, Baltimore and Washington R. R.	Baltimore and Ohio R. R.	Bidder.	First and Canal streets.	Philadelphia, Baltimore and Washington R. R.	Baltimore and Ohio R. R.
National Mortar Co	$0.83	$0.80	$0.80	Grove Lime and Coal Co.	$0.79	.....	$0.72

Schedule of proposals for furnishing terra-cotta sewer pipes, etc.; received May 15, 1907.

	Terra-cotta sewer pipe.							Vitrified sewer bricks.	Invert blocks.
	3 feet long.						2 feet long.		
	24-inch.	21-inch.	18-inch.	15-inch.	12-inch.	10-inch.	15-inch.		
National Fire Proofing Co	$0 975	$0.75	$0 51	$0 405	$0 30	$0.225	$0 378	.....	.....
American Sewer Pipe Co	975	75	.51	405	30	225	379	.....	.....
Wm. Wist Clarke & Son	.9745	.745	509	.4045	299	2245	.....	.....	.....
Lamond Bros	.....	.....	.....	.....	25	18	33¼	.....	$0.70
Metropolitan Paving Brick Co	.....	.....	.....	.....	.....	.....	.....	$19 00	.....

Schedule of proposals for constructing a plate girder bridge on K street over Rock Creek and Chesapeake and Ohio Canal between Twenty-eighth and Twenty-ninth streets NW.

Bidder.	Amount.	Bidder.	Amount.
J. J. Overn	$32,500.00	Penn Bridge Co	$36,900.00

Schedule of proposals received October 3, 1906, for railing for Connecticut Avenue Bridge.

Bidder.	Amount.	Bidder.	Amount.
North Penn Iron Co	$5,560.00	New Jersey Foundry and Machine Co.	$9,440.00
The J. L. Mott Iron Works	7,567.00	Ralph C. Hoag & Co	7,270.00
Chesapeake Iron Works	8,000.00	Fred S. Gichner	5,850.00
C. A. Schneider's Sons	6,760.00		

Schedule of proposals for furnishing cast-iron lamp-posts for Connecticut Avenue Bridge; opened December 22, 1906.

Bidder.	Amount.	Bidder.	Amount.
J. L. Mott Iron Works	$13,076.00		

Schedule of proposals for laying cement sidewalk on Connecticut Avenue Bridge; received April 8, 1907.

Bidder.	Amount.	Bidder.	Amount.
Colburn Bros	$1,895.21	R. S. Blome Co	$3,200.00
R. J. Beall Construction Co	2,373.00	R. E. Boiseau	3,000.00
Cranford Paving Co	2,690.00		

Schedule of proposals for constructing concrete steel bridge across Baltimore and Ohio R. R. Co. track on line of Monroe street, Anacostia; received April 20, 1907.

Bidder.	Amount.	Bidder.	Amount.
Penn Bridge Co	$19,100.00	Cranford Paving Co	$22,900.00
Jas. J. Overn	23,850.00		

Schedule of proposals for the removal of Woodley Lane Bridge.

Bidder.	Amount.	Bidder.	Amount.
Ben Einstein	$1,308.28	Cook, Bernheimer & Co	$777.50
Lewis Hopfenmaier	1,026.50	T. Edw. Clark	475.00
Geo. W. Mater	900.00	William Winston	50.00

Schedule of bids for remodeling plumbing in M Street High School; opened July 24, 1906.

Bidder.	Amount.	Bidder.	Amount.
Dunigan Plumbing Co	$9,750.00	Wm. Rothwell & Son	$9,921.00

Schedule of proposals for remodeling plumbing in Tyler and Phelps School buildings; opened July 30, 1906.

Bidder.	Tyler.	Phelps.	Bidder.	Tyler.	Phelps.
M. B. Casey & Co	$4,370.00	$3,900.00	Wm. Rothwell & Son	$4,953.00	$4,188.00
Dunigan Plumbing Co	5,020.00	4,100.00			

Schedule of proposals for changes in plumbing in Harrison School; opened August 15, 1906.

Bidder.	Amount.	Bidder.	Amount.
M. B. Casey & Co	$3,950.00	Wm. Rothwell & Son	$4,368.00

Schedule of proposals for plumbing work in Jones School; opened August 29, 1906.

Bidder.	Amount.	Bidder.	Amount.
Wm. Rothwell & Son	$4,988.00	Dunigan Plumbing Co	$4,775.00
M. B. Casey & Co	4,950.00		

Schedule of proposals received November 20, 1906, for plumbing work in No. 3 police station.

Bidder.	Amount.	Bidder.	Amount.
Wm. Rothwell & Son	$1,044.00	Daly & Knightly	$1,119.00

Schedule of proposal received June 26, 1907, for remodeling plumbing of Jackson School.

Bidder.	Amount.	Bidder.	Amount.
Dunigan Plumbing Co	$3,768.00		

Schedule of proposal received June 28, 1907, for remodeling plumbing in various school buildings.

Bidder.	Abbott.	Adams.	Small-wood.	Van Buren.
Dunigan Plumbing Co	$6,390.00	$3,520.00	$3,704.00	$8,015.00

Schedule of proposals for constructing public convenience station No. 2, reservation 33; opened May 17, 1906.

Bidder.	Amount.	Bidder.	Amount.
A. B. Stannard	$18,840.00	J. M. Dunn	$19,517.00

Schedule of proposals for cell work, east wing of workhouse; opened July 9, 1906.

Bidder.	Amount.	Bidder.	Amount.
R. J. Beall Construction Co	$2,049.00	B. B. Knell	$2,090.00

Schedule of proposals for plumbing in the Corcoran and Lenox schools.

Bidder.	Corcoran.	Lenox.
Dunigan Plumbing Co	$4,580.00	$3,703.00
M. B. Casey & Co	4,890.00	4,000.00
Wm. Rothwell & Son	4,600.00	3,495.00
J. J. McCann	6,250.00	5,800.00

Schedule of proposals for plumbing work in public convenience station No. 2, in reservation 33; opened May 17, 1906.

Bidder.	Amounts.		
	Structural glass urinals.	Marble urinals.	Slate urinals.
M. B. Casey & Co	$4,748.00	$4,018.00	$3,568.00
Wells Newton Co	4,790.00	4,125.00	3,625.00
Jas. Nolan & Son	5,395.00	4,710.00	4,200.00
Wm. Rothwell & Son	5,300.00	4,550.00	4,100.00

Schedule of proposals for cell construction in east wing of workhouse at Washington Asylum; opened July 7, 1906.

Bidder.	Cell work and plumbing above first-floor level.	Cinder or gravel concrete floors.
Pauly Jail Building Co	$59,422.00	$58,908.00
Van Dorn Iron Works Co	63,172.00	58,922.00
B. F. Smith Fireproof Construction Co	66,226.00	60,824.00

Schedule of proposals received June 25, 1907, for reenforcing floors and walls of Abbott School building, at corner of Sixth street and New York avenue northwest.

Bidder.	Amount.	Bidder.	Amount.
J. H. Gibbons	$3,897.00	Benj. B. Knell	$3,990.00
Benj. Blethyn	4,498.00		

Schedule of proposal for constructing crematorium on reservation No. 13, received June 26, 1907.

Bidder.	Amount.	Bidder.	Amount.
Pavarini & Wyne	$17,500.00	Jos. H. Gibbons	$19,773.00
W. E. Mooney	22,789.00		

Schedule of proposals received January 5, 1907, for improving street-cleaning department stable, in alley, square 367.

Bidder.	Amount.	Bidder.	Amount.
W. E. Mooney	$23,666.00	Boryer & Smith	$32,859.00
R. T. Humphrey	24,800.00	Pavarini & Wyne	23,500.00
Thos. H. Melton	25,054.00		

Schedule of proposals for constructing the tuberculosis hospital; opened February 23, 1907.

Bidder.	Amount.	Bidder.	Amount.
Brennan Construction Co	$110,972.00	Thompson-Starrett Co	$111,500.00
The Engineering Contracting Co	109,191.00	Richardson & Burgess (Inc.)	109,906.00
Pavarini & Wyne (Inc.)	99,000.00	Boryer & Smith	115,000.00
Appleton & Burrell	106,557.00		

Schedule of proposals for constructing school building No. 149, Adams street, between Harrison and Jackson streets, Anacostia.

Bidder.	Amount.	Bidder.	Amount.
Pavarini & Wyne	$42,500.00	Engineering Contracting Co	$45,905.00
R. T. Humphrey	43,900.00	W. E. Mooney	48,766.00
Burgess & Parsons	44,123.00	McKay & Morris	50,266.00
J. M. Dunn	44,992.00		

Schedule of proposal received March 25, 1907, for ventilating shaft at public convenience station No. 2.

Bidder.	Amount.
W. E. Mooney	$996.00

Schedule of proposals received April 16, 1907, for constructing engine house, Minnesota avenue northeast, between Hunt place and Sherwood avenue, Hillbrook.

Bidder.	Amount.	Bidder.	Amount.
Burgess & Parsons	$15,939.00	R. T. Humphrey	$17,500.00
Pavarini & Wyne	17,190.00	W. E. Mooney	18,648.00

Schedule of proposals for constructing bath houses, runways, etc., at new bathing beach; opened May 20, 1907.

Bidder.	Amount.	Bidder.	Amount.
E. L. McClelland	$8,938.00	W. E. Mooney	$11,382.00
G. J. Osterman Co	10 950.00	J. T. Walker & Son	11,750.00

Schedule of bids received July 7, 1906, for furnishing cast-iron water pipe specials.

Bidder.	Price per ton	Bidder.	Price per ton.
M. J. Drummond & Co	$63.80	Lynchburg Foundry Co	$64.95

Schedule of proposals for furnishing 8-inch cast-iron water pipe; opened September 1, 1906.

Bidder.	Price.	Bidder.	Price.
Lynchburg Foundry Co	$35.25	Central Foundry Co	Informal.
United States Cast Iron Pipe and Foundry Co	Informal.		

Schedule of proposals for furnishing cast-iron water pipe; opened February 2, 1907.

Bidder.	3-inch.	4-inch.	6-inch.	12-inch.
Lynchburg Foundry Co	$40.35	$38.85	$37.80	$37.30
United States Cast Iron Pipe and Foundry Co	44.20	43.70	42.00	40.85
Allegheny Forging Co	51.30	47.45	46.10	45.55
M. J. Drummond & Co	44.65	40.65	39.60	38.40

Schedule of bids for furnishing cast-iron water pipe specials; opened February 9, 1907.

Bidder.	Estimated quantity, 85 tons.	Aggregate price.
M. J. Drummond & Co	$63.85	$5,427.25
Lynchburg Foundry Co	66.10	5,618.50

Schedule of bids for furnishing 8-inch cast-iron water pipe; received April 27, 1907.

Bidder.	Price per ton.	Bidder.	Price per ton.
Lynchburg Foundry Co	$38.80	United States Cast Iron Pipe and Foundry Co	$40.30
American Cast Iron Pipe Co	39.80		

Schedule of bids received July 7, 1906, for furnishing two hundred and twenty-five 4, 6, 8, and 12 inch water valves.

Bidder.	4-inch.	6-inch.	8-inch.	12-inch.	Total cost.
Chapman Valve Manufacturing Co	$9.26	$13.72	$20.42	$41.32	$4,914.00
Coffin Valve Co	15.00	29.00	45.00	77.00	9,825.00
Roe Stephens Manufacturing Co	15.29	18.85	29.29	43.60	6,344.75
The Fairbanks Co	21.00	27.00	40.00	63.00	8,875.00

Schedule of proposals for furnishing one 42-inch water gate; opened October 27, 1906.

Bidder.	Amount.	Bidder.	Amount.
The Fairbanks Co	$1,125.00	Thos. Somerville Co	$1,496.25
Eddy Valve Co	1,450.00	Roe Stephens Manufacturing Co	1,500.00
Chapman Valve Co	1,491.00	Bridgman Bros. Co	1,975.00

Schedule of bids received for furnishing valves; opened February 19, 1907.

Bidder.	Amount.			
	4-inch.	6-inch.	8-inch.	12-inch.
Eddy Valve Co	$7.40	$11.50	$17.75	$33.00
Fairbanks Co	7.60	11.90	18.40	35.00
A. P. Smith Manufacturing Co	8.00	13.75	19.00	39.00
Coffin Valve Co	8.75	.....	19.00	.....

Schedule of proposals for furnishing fire hydrants; opened March 5, 1907.

Bidder.	Amount.	Bidder.	Amount.
American Hydrant Co	$33.13	A. P. Smith Manufacturing Co	$43.00
Florence Iron Works	42.50	Ludlow Valve Co	77.50

Schedule of bids for furnishing cast-iron covers for water-meter boxes; opened July 25, 1906.

Bidder.	Price.	Bidder.		Price.
H. W. Clark	$1.98	G. & W. Manufacturing Co	B.	$0.99
Union Water Meter Co	2.65		A.	1.25

Schedule of proposals for furnishing water meters; opened July 21, 1906.

Bidder.	¾-inch meters.			
	Rotary piston.	Oscillating piston.	Disk	Informal.
Henry R. Worthington, New York City			$6.25	[a] $10.75
Cuyler & Mohler, Baltimore, Md			[b] 5.70 [b] 6.90 [b] 7.60	
Standard Water Meter Co., Brooklyn, N. Y			7.60	7.60
Hersey Manufacturing Co., South Boston, Mass	$12.00		8.00	
National Meter Co., New York, N. Y	[c] 12.00	[d] $10.00	[e] 8.00	
Pittsburg Meter Co., East Pittsburg, Pa			[f] 8.00	
Thomson Meter Co., Brooklyn, N. Y			[g] 8.00	
Union Water Meter Co., Worcester, Mass			[h] 8.00	
Neptune Meter Co., New York, N. Y			[i] 8.00	

Bidder.	¾-inch meters.			
	Rotary piston.	Oscillating piston.	Disk.	Informal.
Henry R. Worthington, New York City			$9.50	$15.75
Cuyler & Mohler, Baltimore, Md			[b] 8.55 [b] 10.20 [b] 11.40	
Standard Water Meter Co., Brooklyn, N. Y			10.40	10.40
Hersey Manufacturing Co., South Boston, Mass	$21.00		12.00	
National Meter Co., New York, N. Y	[c] 21.00	[d] $15.00	[e] 12.00	
Pittsburg Meter Co., East Pittsburg, Pa			[f] 12.00	
Thomson Meter Co., Brooklyn, N. Y			[g] 12.00	
Union Water Meter Co., Worcester, Mass			[h] 12.00	
Neptune Meter Co., New York, N. Y			[i] 11.00	

[a] Piston.
[b] New American.
[c] Crown.
[d] Empire.
[e] Nash.
[f] Keystone.
[g] Lambert.
[h] King.
[i] Trident.

Schedule of bids for brass stopcocks; received August 18, 1906.

Bidder.	Price.	Bidder.	Price.
G. & W. Manufacturing Co	$0.57	Bridgman Bros. Co	$0.60
The Wm. Powell Co	[a] .47	A. P. Smith Manufacturing Co	.585
H. Mueller Manufacturing Co	[a] .545		

[a] Informal.

Schedule of proposals for brass stopcocks and couplings; received June 15, 1907.

Bidder.	Price.	
	Stop-cocks.	Coup-lings.
Anderson Coupling Co	$0.57	$0.35
Jenkins Manufacturing Co		.395
H. Mueller Manufacturing Co	.70	.405
Glauber Brass Manufacturing Co	.70	.40
G. & W. Manufacturing Co	.64	.46

Schedule of proposals for corporation and curb cocks; opened November 10, 1906.

Bidder.	Corporation cocks.		Curb cocks.		Amount.
	¾-inch.	1-inch.	¾-inch.	1-inch.	
A. P. Smith Manufacturing Co	$0.92	$1.50	$1.36	$1.92	$7,07[illegible]
G. & W. Manufacturing Co	1.24	1.84	1.74	2.48	10
H. Mueller Manufacturing Co	.795	1.18	1.245	1.72	7
Thos. Somerville Co	1.16	1.55	.85	1.25	7

Schedule of proposals for furnishing miscellaneous castings; opened May 15, 1907.

	G. & W. Manufacturing Co.	Edw. Richardson Brass Co.	J. T. Springmann, jr., & Bro.	F. J. White.	Barnum & Richardson.	Chas. White & Co.
Alley grates and frames, No. 1	$1.40					
Manhole frames:						
2 feet						$3.44
3 feet			$9.00			
Manhole covers:						
2 feet						1.74
3 feet			8.00			
Manhole covers inverted, 2 feet				$1.94		
Manhole rings, 2 feet			1.60			
Valve casings:						
No. 589						8.24
No. 328						8.24
Valve casing covers:						
No. 177	1.40					
No. 328						1.70
No. 507			1.50			
No. 515						1.64
No. 589						1.70
Miscellaneous castings			.025			
Do	.3675					

Schedule of proposals for furnishing red sewer bricks fiscal year ending June 30, 1907; opened May 26, 1906.

Bidder.	City of Washington.		County of Washington east of Eastern Branch.	County of Washington between Eastern Branch and Rock Creek not over 1½ miles from city limits.	County of Washington west of Rock Creek not over 1 mile from Georgetown, city limits.	District property yards.	At bidders' works.	Hauling beyond limits mentioned.
	East of Rock Creek.	West of Rock Creek.						
Standard Brick Co	$9.93	$10.43	$10.53	$10.73	$11.93	$9.93	$8.93	$0.97
Wm. Wirt Clarke & Son: [a]								
Baltimore	9.25					9.90		
Frederick	9.90					10.55		
Reynoldsville Brick and Tile Co. [b]	12.50	12.50	12.50	12.50	12.50	12.50	6.00	

[a] Subject to samples and inspection at factory.
[b] Price quoted for delivery f. o. b. cars at any siding on railroad.

Schedule of proposals for furnishing red sewer bricks; received May 15, 1907.

Bidder.	City of Washington.		County of Washington.					
	East of Rock Creek.	West of Rock Creek.	East of Eastern Branch	Between Eastern Branch and Rock Creek.	West of Rock Creek.	Property yards.	Bidders' works.	Additional haul.
New Washington Brick Co	$9.69	$10.50	$10.60	$10.75	$11.90	$9.69	$8.69	$1.00
The Frederick Brick Works						12.00	10.50	

Schedule of bids for furnishing repressed vitrified paving blocks; opened May 25, 1906.

Bidder.	Price per M.	Bidder.	Price per M.
James M. Porter	$20.75	Clearfield Clay Working Co.	$21.50
W. Wirt Clarke & Son	23.00	The Guise Brick and Stone Co.:	
James M. Porter	22.00	Pennsylvania Railroad	22.50
Federal Clay Products Co	22.40	Baltimore and Ohio Railroad	23.00
American Sewer Pipe Co	23.85	Mack Manufacturing Co	23.93
Camden Clay Co	20.00	Auburn Shale Brick Co	21.80

Schedule of proposals for furnishing repressed vitrified paving blocks; received May 15, 1907.

Bidder.	Price.	Bidder.	Price.
C. P. Mayer Brick Co	$20.90	Jas. M. Porter	$23.95
American Sewer Pipe Co	24.00	Metropolitan Paving Brick Co	28.50
Mack Manufacturing Co	24.00		

Schedule of proposals for furnishing asphalt paving blocks; received May 15, 1907.

Bidder.	Price per M.
Washington Asphalt Block and Tile Co	$62.00

Schedule of proposals for furnishing sand and gravel; opened July 9, 1906.

	Paving and concrete sand.		Building sand.		Gravel.	
	District of Columbia sand yard.	Cranford's wharf.	District of Columbia sand yard.	Cranford's wharf.	District of Columbia sand yard.	Cranford's wharf.
Potomac Dredging Co	$0.74	$0.53	$0.74	$0.53	$0.97	$0.77
Columbia National Sand Dredging Co.	85	65	.85	.65	1.05	.85

Schedule of bids for furnishing granite curbing; opened June 18, 1906.

Bidder.	8 by 8 inch straight.	8 by 8 inch circular.
W. P. Evans	$0.68	$0.90
Brantley Granite Co	.70	1.25
Hooper, Haney & Co	.72	.98
Georgia Granite Co	.70	1.25
Bragdons, Fernald & Gordon	.70	1.00
Do	.73	.....
John McIntosh	.695	1.24
Do	.73	.....
A. B. Cook	.69	.....

Schedule of proposals for repairs to asphalt pavements; received March 23, 1907.

Bidder.	Rate.	Amount.
Brennan Construction Co.:		
A	$1.59	$212,200.00
B	1.63	.....
Barber Asphalt Paving Co.:		
A	1.79	.....
B	1.89	267,350.00
Cranford Paving Co.:		
A	1.77	.....
B	1.89	258,250.50

Schedule of proposals received March 30, 1907, for paving with sheet asphalt.

Bidder.	Standard Pavement.	Block gutters.	Amount.
The Cranford Paving Co	$1.69	$1.23	$78,879.00
The Barber Asphalt Paving Co	1.79	1.44	83,862.00
The Brennan Construction Co	1.68	1.33	78,659.00

Schedule of proposals for laying asphalt block pavements; received March 30, 1907.

Bidder.	Price.	
	5-inch.	4-inch.
Washington Asphalt Block and Tile Co	$1.80	$1.65

Schedule of bid for laying asphalt block pavements; opened July 20, 1906.

Bidder.	Price per square yard.	
	5-inch.	4-inch.
Washington Asphalt Block and Tile Co	$1.76	$1.60

Schedule of proposals for laying cement sidewalks; opened October 19, 1906.

Bidder.	Class A.	Class B.
R. S. Blome Co	$1.134	$1.244
Cranford Paving Co	1.25	1.25

Schedule of proposals for grading and regulating suburban streets and avenues; opened July 14, 1906

Bidder.	Grading.	6 by 20 inch curb set.	8 by 8 inch curb set.	Gutters.	Macadam unloaded and hauled.	Macadam over-hauled.	Total.
G. B. Mullin	$0.33	$0.24	$0.34	$0.34	$0.39	$0.20	$16,514.10
Matthew Myers	.36	.30	.30	.39	.40	.29	19,981.40
E. G. Gummel	.53	.27	.39	.53	.49	.35	25,531.40

Schedule of proposals for grading certain streets and avenues; opened July 14, 1906.

Bidder.	Rhode Island avenue ne.		Girard street ne.	
	Price.	Cost.	Price.	Cost.
Matthew Myers	$0.37	$3,700.00	$0.37	$5,550.00
Lewis N. Simpson	.35	3,500.00	.30	4,500.00
E. G. Gummel	.50	5,000.00	.60	9,000.00
G. B. Mullin	.385	3,850.00	.3375	5,062.50

Schedule of proposals for improving Connecticut avenue west of Rock Creek; opened September 7, 1906.

Bidder.	Grading (per cubic yard).	Macadam (per cubic yard).	Cobble gutters (per square yard).	Total.
G. B. Mullin	$0.37	$0.94	$0.34	$19,308.00
E. G. Gummel	.50	1.25	.55	26,160.00

Schedule of proposals received April 6, 1907, for grading Rhode Island avenue northeast, east of Brentwood road.

Bidder.	Price.	Amount.
Lewis N. Simpson	$0.35	$4,200.00
E. G. Gummel	.33	3,960.00
Geo. Nesline	.325	3,900.00

Schedule of proposals for furnishing and installing electric motor and pump at Industrial Home School for the disposal of sewage; opened September 17, 1906.

Bidder.	Amount.	Bidder.	Amount.
C. E. Price	$475.00	Blackall & Baldwin	$1,470.00
National Electrical Supply Co.	677.00		

Schedule of proposals for dredging in front of sewage pumping station; opened October 8, 1906.

Bidder.	Per cubic yard.	Total.
A. Dean & Co.	$0.32	$1,600.00
John Miller	.37	1,850.00

Schedule of proposals for cement sidewalk around sewage disposal station; opened May 11, 1907.

Bidder.	Price per square yard.	Bidder.	Price per square yard.
Colburn Bros.	$1.12	Fred Drew	$1.18
R. E. Boiseau	1.22	R. J. Beall Construction Co.	1.19

Schedule of bids received July 7, 1906, for furnishing vitreous floor tile for pumping station.

Bidder.	Price per foot.	Bidder.	Price per foot.
American Encaustic Tiling Co.	$0.26½	The Mosaic Tile Co.	$0.28

Schedule of proposals for furnishing underground signal and telephone cables; opened July 21, 1906.

[Amounts are in cents per foot.]

	Chesapeake and Potomac.	Standard Underground Cable Company.	John A. Roebling's Sons Co.
1. For 18,000 feet of 3-pair combination cable, rubber insulation	$0.209	$0.142	$0.17
2. For 15,000 feet of 5-pair combination cable, rubber insulation	.302	.186	.23½
3. For 4,000 feet of 6-pair combination cable, rubber insulation	.334	.217	.27
4. For 17,000 feet of 8-pair combination cable, paper insulation	.163	.155	.16275
5. For 12,000 feet of 10-pair combination cable, paper insulation	.183	.175	.18375
6. For 1,700 feet of 12-pair combination cable, paper insulation	.224	.194	.20370
7. For 600 feet of 18-pair combination cable, paper insulation	.294	.296	.31080
8. For 21,000 feet of 30-pair combination cable, paper insulation	.378	.382	.40110
9. For 4,000 feet of 35-pair combination cable, paper insulation	.427	.442	.46410
10. For 475 feet of 80-pair combination cable, paper insulation	.748	.756	.79380
11. For 630 feet of 12-pair signal cable, paper insulation	.278	.279	.29295
12. For 642 feet of 15-pair signal cable, paper insulation	.332	.322	.33915
13. For 642 feet of 25-pair telephone cable, paper insulation	.267	.252	.26460
14. For 590 feet of 75-pair telephone cable, paper insulation	.515	.493	.51765
15. For 590 feet of 100-pair telephone cable, paper insulation	.626	.591	.62055

Schedule for proposals for hauling materials; opened June 8, 1906.

Bidder and limits.	Sand.	Gravel.	Paving brick.	Paving block.	6 by 20 inch curb.	8 by 8 inch curb.	Cast-iron water pipe, etc.	Broken stone.
City of Washington:								
Littlefield, Alvord & Co	$0.75	$0.75	$1.90	$2.75	$0.06	$0.05	$0.74	.....
Merchants Transfer and Storage Co	.75	.75	1.45	2.45	.05	.04	.60	.....
G. W. Knox Express Co	.....	.....	.....	.....	.08	.06	.89	.....
City of Georgetown:								
Littlefield, Alvord & Co	.99	.99	1.90	3.25	.08	.055	.79	.....
Merchants Transfer and Storage Co	.95	.95	1.45	2.75	.06	.05	.75	.....
G. W. Knox Express Co	.....	.....	.....	.....	.08	.06	.89	.....
East of Eastern Branch:								
Littlefield, Alvord & Co	.75	.75	1.85	3.25	.08	.055	.84	.....
Merchants Transfer and Storage Co	.75	.75	1.45	2.45	.05	.04	.60	.....
G. W. Knox Express Co	.....	.....	.....	.....	.09	.07	.94	.....
West of Rock Creek:								
Littlefield, Alvord & Co	.99	.99	1.90	3.25	.08	.055	.79	.....
Merchants Transfer and Storage Co	1.25	1.25	2.00	3.00	.075	.06	.95	.....
G. W. Knox Express Co	.....	.....	.....	.....	.09	.07	.94	.....
West of Georgetown:								
Littlefield, Alvord & Co	.99	.99	1.90	3.25	.08	.055	.79	.....
Merchants Transfer and Storage Co	1.25	1.25	2.00	3.00	.075	.06	.95	.....
G. W. Knox Express Co	.....	.....	.....	.....	.09	.07	.94	.....
Additional haul, mile or fraction of:								
Littlefield, Alvord & Co	.24	.24	.45	.75	.025	.02	.24	.....
Merchants Transfer and Storage Co	.20	.20	.25	25	.02	.04	.25	.....
G. W. Knox Express Co	.....	.....	.....	.....	.04	.03	.39	.....
Unloading and hauling not over 1 mile:								
Littlefield, Alvord & Co	.....	.....	.....	.....	.....	.....	.....	$0.59
Merchants Transfer and Storage Co	.....	.....	.....	.....	.....	.....	.....	.60
Geo. B. Mullin	.....	.....	.....	.....	.....	.....	.....	.43
G. W. Knox Express Co	.....	.....	.....	.....	.....	.....	.....	.....
Additional haul in excess 1 mile:								
Littlefield, Alvord & Co	.....	.....	.....	.....	.....	.....	.....	.24
Merchants Transfer and Storage Co	.....	.....	.....	.....	.....	.....	.....	.20
G. W. Knox Express Co	.....	.....	.....	.....	.....	.....	.....	.....
G. B. Mullin	.....	.....	.....	.....	.....	.....	.....	.18

APPENDIX A.

SPECIFICATIONS FOR LAYING SHEET ASPHALT PAVEMENT.

1. *Work.*—The work to be done under this contract will consist of paving with sheet asphalt such streets, avenues, and roads, or parts thereof, or doing any portion of such work, as may be directed under appropriations for the fiscal years ending June 30, 1907, and June 30, 1908. The estimated amount is 45,000 square yards of asphalt surface and 2,300 square yards of vitrified block gutter. These amounts are approximations only and may be considerably varied from; but they will be used in canvassing bids and the award will be based thereon. The Commissioners especially reserve the right to regulate the time and order of executing work ordered under this contract as may appear most advantageous to the interests of the District.

2. *Bids.*—The contractor will, for the prices bid, do all the work prescribed in these specifications, do all the necessary grading and trimming of the roadbed, and all rolling; provide bridges, fences, and other means of maintaining travel on intersecting streets, roads, and railroads, and all private driveways after giving due notice to parties affected thereby; maintain the same in good and safe condition as long as may be necessary, and then remove such temporary expedients and restore such roads to their proper condition; provide watchmen, red lights, fences, and other precautionary measures necessary to the protection of persons and property; furnish all materials (except as specified, and all tools and implements, labor, and transportation required to lay and put in complete order for use the specified pavement, and do each and all of these to the satisfaction of the Engineer. Upon the completion of the work he will remove any temporary structures erected during the progress of the work, and restore all fixtures, pavements, and parkings, both public and private, to satisfactory condition.

3. *Grading and subgrade.*—The area over which the pavement is to be laid must be excavated to the proper depth below the surface of the pavement when completed, any objectionable or unsuitable matter below the bed being removed to such depth as may be directed by the Engineer and the space filled with good gravel or other acceptable material, compactly rolled and rammed. The bed, after being trimmed so as to be parallel to the surface of the pavement when completed, will be thoroughly compacted by rolling, with a roller weighing not less than 5 tons and by heavy ramming at places which can not be reached by the roller, dampening the bed before rolling and ramming, if required, to the satisfaction of the Engineer. No extra allowance will be made for trimming or rolling, but the volume of earth, etc., removed will be paid for as grading of its class.

4. *Concrete base.*—Upon the bed thus prepared there will be laid a 6-inch foundation of concrete as directed, made of the following materials by volume: 1 part Portland cement, 4 parts sand, 5 parts gravel, and 5 parts stone. Broken stone, run of the crusher, may be substituted for part or all of the gravel, at the option of the contractor.

5. *Cement.*—The cement used shall conform to the current specifications for supplying cement of its kind to the engineer department of the District of Columbia. No cement shall be used upon the work until it has been tested in the office of the Engineer Commissioner and accepted by him, the tests to extend over such length of time, not exceeding twenty-eight days, as the Engineer Commissioner may think necessary. The cement while in storage or upon the work, or while being hauled upon the work, shall be properly protected, and no cement shall be used which, in the opinion of the Engineer Commissioner, has been injured by age or exposure. The cement shall be kept by the contractor in store, under proper cover, in the city of Washington, subject to inspection for at least ten days after notifying the inspector of asphalt and cements, before it can be used on the streets, and if deemed advisable by the Engineer Commissioner, twenty-eight days. Should the contractor's work be delayed by his failure to keep himself supplied with the necessary amount of approved cement, the District shall have the right to furnish him with tested cement from the stocks on hand at its warehouse and charge said contractor with the cost of same at the rate of $2.50 per barrel of Portland cement for each and every barrel so furnished, and collect the amount due therefor from any moneys found to be due to said contractor by the District.

6. *Sand.*—The sand used shall be clean, sharp river, or pit sand, containing both fine and coarse grains, but free from sewage, mud, clay, mica, paper, leaves, chips, and other foreign matter and not showing when shaken with water and after subsidence more than 5 per cent, by volume, of silt.

7. *Broken stone.*—Stone used in concrete must be hard, durable, and properly broken to a size small enough to pass through a ring 2 inches in diameter, but none smaller than one-half inch, except when the run of the crusher is substituted for gravel. The run of the crusher shall not contain over 1 per cent of material passing a No. 10 sieve. The stone shall be thoroughly cleansed from all foreign substance, and shall be screened and washed, if so ordered by the Engineer. Sand, detritus, or any material other than hard, angular fragments of stone will be considered foreign substances.

8. *Gravel.*—Gravel shall be clean, washed gravel, and shall not contain pebbles greater than 1½ inches in their largest dimensions.

9. *Water.*—Water used for mortar and concrete shall be fresh and clean, free from earth, dirt, or sewage, and shall be used in such quantity as the Engineer may direct.

10. *Platforms.*—Platforms shall be provided upon which all sand, gravel, and broken stone for concrete shall be placed when brought upon the line of the work, and kept there until used.

11. *Mixing.*—The thorough mixing and incorporation of all materials will be insisted upon. If done by hand labor the dry cement and sand shall be turned over and mixed with shovels by skilled workmen not less than six times before water is added; the stone after being drenched with water shall be added to the mixed sand and cement; the drenching shall not be done while the stone or gravel is in the wheelbarrow; the whole mass shall be thoroughly turned over, with shovels, not less than four times, and mixed upon a water-tight platform until every particle of stone is completely enveloped with mortar. The whole operation of mixing and laying each batch shall be performed as expeditiously as possible, by the aid of machinery or a sufficient number of skilled men. If the concrete is mixed in batches requiring one barrel of cement, the platform must not be smaller than 10 feet by 12 feet, nor will a larger amount of concrete than can be made with one barrel of cement be allowed to be mixed in one batch by hand. In mixing by machinery the materials must be so delivered as to insure a uniform product of the specified proportions of all ingredients to the satisfaction of the Engineer Commissioner.

12. *Setting.*—Concrete shall not be used after it has begun to show evidence of setting. No concrete which has once set shall be used as material for mixing a new batch.

Each batch of concrete after being mixed shall be spread in place in horizontal layers so as to give the requisite thickness after being tamped, and shall then be thoroughly compacted. Any evidence of lack of compaction will be regarded as sufficient reason for removal and replacement of the base. The base must be watered each twenty-four hours, either by rain or artificially, until covered with binder or seven days old. Hauling over base less than three days old must not be allowed unless planks are laid.

13. *Binder.*—The binder course shall be composed of clean, broken stone, equal in quality to the stone for the base, and passing an inch and a quarter screen. Eighty-five per cent of this shall pass said screen in its longest dimensions, and of the remaining 15 per cent no piece shall have a larger dimension than 2 inches, and the stone, after passing the heating drums, shall not contain less than 5 nor more than 15 per cent of material passing a No. 10 screen.

The stone will be heated not higher than 350° F., in suitable appliances. It is then to be thoroughly mixed by machinery with asphalt cement, such as is acceptable for surface cement, penetration 60 to 90, at such temperature and in such proportions that the resulting binder will have life and gloss without an excess of cement. Should it appear dull from overheating or lack of cement, it will be rejected. While hot it will be hauled upon the work, spread upon the base so that when compacted it will be at least 1½ inches in thickness, and immediately rammed and rolled until it is cold. Should the resulting course not show a proper bond, it shall be immediately removed and replaced by the contractor. Binder and top shall not be taken from the yard to the site of the work when weather conditions are, in the judgment of the Engineer, unsuitable for the work of laying the pavement.

The contractor shall not enter upon a concrete base in order to lay the binder course until it has obtained sufficient strength for such a purpose, and during the period between laying the base and binder he shall properly protect it, and, when ordered by the Engineer Commissioner, shall sprinkle it in warm weather between the hours of sunset and sunrise as often as may be deemed necessary, and in cold weather cover it with a material suitable for its protection.

14. *Asphalt wearing surface.*—The wearing surface of the pavement shall be composed of asphalt cement, clean, sharp-grained sand, fine absorbent mineral dust.

15. *Asphalt cement.*—The asphaltic cement must be practically free from water, and must be within the range of 40 and 70 penetration when tested at 77° F., the amount of penetration to be fixed by the Engineer Commissioner.

Preference will be given to an asphaltic cement that is not readily affected by the action of water, provided it is satisfactory in other respects. If an asphaltic cement is accepted that is affected by water, some provision satisfactory to the Engineer Commissioner must be made to guard against the results of such action, and such work must be included in the price bid.

If an asphalt has been proposed for use by the contractor and approved by the Engineer Commissioner, no change in the asphalt to be used shall be made unless with the approval of the Engineer Commissioner. If an asphalt is submitted for use which has not been successfully used for a period of at least two years for paving under conditions similar to those existing in the District of Columbia, its use may be limited to such extent as may be deemed advisable, or it may be rejected for use entirely, in the discretion of the Engineer Commissioner.

The bitumen of the asphaltic cement must comply with the following tests:

1. It must be of such a character that if when tested at 32° F. it shows a hardness of 10 penetration, it must not when tested at 115° F. be softer than 350 penetration.

2. When a briquette of the pure bitumen, having a minimum cross section of 1 square centimeter, is tested for ductility at 77°, the bitumen must stretch to a distance of 8 centimeters before breaking.

3. When the bitumen is heated in an open tin at a temperature of 300° F. for eighteen hours in a hot-air oven, it must not show a loss by volatilization of over 5 per cent and it must not have been hardened over 50 per cent by this heating.

The asphaltic cement must never be heated to a temperature that will injure it.

When the asphaltic cement contains over 5 per cent of material that will separate by subsidence while in a molten condition, it must be thoroughly agitated before drawing from storage and while in use in the supply kettles, so as to insure a uniform cement.

These properties shall be determined by tests made by uniform methods, descriptions of which are on file in the office of the Engineer Commissioner.

16. *Sand.*—The sand in use shall be hard grained and moderately sharp. On sifting it should have at least 15 per cent of material that would be caught on a 40 mesh per inch screen, 25 per cent of material that will pass an 80 mesh to the inch screen, 10 per cent of which at least must pass a 100 mesh to the inch screen. If the sand to be used does not contain the desired fine material, mineral dust can be added to make up the deficiency, and in any case at least 5 per cent of such mineral dust shall be used. The amount of fine material may be diminished on streets of light traffic when approved by the Engineer Commissioner.

17. *Mineral dust.*—This shall be any fine, absorbent inorganic dust not acted upon by water, the whole of which shall pass a 30-mesh screen, and at least 75 per cent pass a 100-mesh screen.

18. *Asphalt paving mixture.*—The materials complying with the above specifications shall be mixed in proportion by weight, depending upon their character and the traffic on the street and upon the character of the asphalt, and will be determined by the Engineer Commissioner; but the percentage of bitumen in any mixture soluble in carbon bisulphide shall not exceed the limits, 9 to 13 per cent. If the proportions of the mixture are varied in any manner from those specified, the mixture will be condemned; its use will not be permitted; and, if already placed on the streets, it will be removed and replaced by proper materials at the expense of the contractor.

The sand, or the mixture of sand and stone dust, and the asphaltic cement, will be heated separately to about 300° F. The dust, if limestone, will be mixed while cold with the hot sand in the required proportions and then mixed with the asphaltic cement at the required temperature and in the proper proportion in a suitable apparatus, so as to effect a thoroughly homogeneous mixture. Sand boxes and asphalt gages will be weighed in the presence of inspectors as often as may be desired.

Samples of all material entering into the composition of the pavement shall be supplied to the inspector of asphalt and cements when required, in suitable tin boxes and cans, and he shall have access to all branches of the works at any time.

The pavement mixture prepared in a manner thus indicated will be brought to the ground in carts at a temperature of not less than 250° or more than 350° F., and if the temperature of the air is less than 60° F., the contractor must provide canvas covers for use in transit. It will then be thoroughly spread to a thickness of at least 2½ inches by means of hot iron rakes, in such manner as to give uniform and regular grade that, after having received its ultimate compression, it will have a net thic

at least 1½ inches. This depth will be constantly tested by means of gages furnished by the Engineer Commissioner. The surface will then be compressed by hand rollers, after which a small amount of hydraulic cement will be swept over it, and it will then be thoroughly compressed by a steam roller weighing not less than 175 pounds to the inch, the rolling being continued for not less than five hours for every 1,000 yards of surface.

19. *Asphalt base.*—In resurfacing work where the depth of binder would be excessive an asphaltic or coal-tar base, as directed, will be first laid. It will be composed of clean broken stone, free from spalls, that will pass through a 3-inch ring, well rammed, and rolled with a steam roller weighing not less than 5 tons. The rolling will be continued until the stone ceases to creep before the roller, and until it is evident that the final compression has been reached. It will then be thoroughly coated with asphaltic paving cement or coal tar of approved quality, as directed.

20. *Hauling and grading.*—(*a*) The old material from the streets will be hauled to the nearest property yard or to such other point as the Engineer Commissioner may direct.

(*b*) Lines and grades will be established by the Engineer Commissioner, and no work will be commenced until these are given.

(*c*) Contractors are to be responsible for the proper preservation of all stakes, etc., set by the Engineer for the determination of line or grade; should any such be disturbed through carelessness the cost of replacing same will be charged against the contractor at a fixed price of $2 for each point, to be deducted from any money due at final settlement.

(*d*) All material excavated, of whatsoever nature, is the property of the District, and will be disposed of as the Engineer Commissioner shall direct.

(*e*) The filling will be done in layers not exceeding 12 inches in thickness, and all material used for this purpose will be subject to approval. If improper or unsuitable material be used, it will be removed at the cost of the contractor.

(*f*) All measurements will be made in place, and payments made thereon.

(*g*) Should the grading involve work in both "cut" and "fill," the measurement of it will be computed on the basis of the volume of the material in place in the "cut" only; the excavated earth from the "cut" section, deposited in the "fill," will not be again paid for as "fill." Should the amount of cut on the street not suffice to make the necessary fill, the amount borrowed from other designated localities will be paid for as grading.

21. *Laying vitrified block.*—Vitrified-block gutters will ordinarily be about 28 inches wide, laid on a concrete base 6 inches in depth, of the same material and proportions and laid in the same manner as prescribed in these specifications for the concrete base under asphalt pavements.

As soon as practicable after the concrete base has been laid, a dry mixture, composed of four parts of the sand specified in paragraph 6 and one part of Portland cement, thoroughly mixed, will be spread thereon, as a bed for the paving blocks, to the depth of not less than one-half inch, and regulated so as to be exactly parallel to the finished grade of the gutter. On the bed prepared for them, the blocks will be set on edge, with the longest dimensions at right angles to the curb, as directed by the Engineer.

The longitudinal joints of each course of blocks laid must be broken by a lap of not less than 4 inches.

The blocks will then be carefully rammed by placing a plank over several courses and ramming the plank with a heavy hammer. The ramming will be continued until the blocks reach a firm, unyielding bed and present a uniform surface, with proper grade. Any lack of uniformity in the surface or defect in the grade must be corrected by taking up and relaying the blocks.

After proper ramming, the entire gutter will be thoroughly grouted with a thin easily flowing grout, of neat Portland cement.

A similar construction of block to that described for the gutters may be used adjacent to railroad tracks; the base will in that case extend to the bottom of the cross ties, or be at least 6 inches thick.

The blocks will be furnished the contractor at the District property yards, and must be hauled to the work at his expense.

ADDITIONAL WORK.

22. The following specifications will cover incidental work which may be required of the contractor:

23. *Setting 6 by 20 inch granite and bluestone curb.*—This curb will be set in the following manner: A trench parallel to the curb line, having a depth of 24 inches below the top of the curb, when set, and 20 inches wide, will be excavated to receive the curb and its gravel bed; the dimesionns of the trench, in width, will be 14 inches

from the curb line toward the building line of the street, and 6 inches from said curb line toward the center line of the street. In this trench thus prepared the curb will be set, and brought to line and grade, with plumb face. Spalls, of stone, hard-burned brick, or other acceptable substance, prepared for the purpose, will be used to adjust the stone to grade, and these spalls will be so placed and adjusted as to support the curbing permanently, and afford a firm and stable support for it, without the use of small chips and fragments, used as "shimming" pieces, to wedge the stone in place. After the stone has been properly placed, and adjusted to line and grade, the trench will be filled with gravel of approved quality, to within 8 inches of the top of the curb; the filling to be done in layers of not more than 3 inches in depth, and thoroughly compacted by suitable ramming. Close contact joints and even surfaces must be made, and the lines and grades furnished, strictly followed.

24. *Setting 8 by 8 inch granite curb.*—The curb will be set in the following manner: A trench parallel to the curb line, having a depth of 15 inches below the top of the curb when set, and 18 inches wide, will be excavated to receive the concrete and the curb. The dimensions of the trench in width will be 14 inches from the curb line toward the building and 4 inches from the curb line toward the center line of the street. In this trench thus prepared a bed of concrete will be laid, filling the trench to a depth of 5 inches, composed of one part of Portland cement, four parts of clean concrete sand, and ten parts of screened pebbles, the material to be mixed and laid under the same conditions as prescribed for laying cement concrete base for sheet asphalt pavements. On the base prepared and laid as above, the curb will be placed before the concrete has set, and adjusted to line and grade by setting it to a firm, unyielding bearing in a bed of freshly made concrete, by the use of heavy wooden mauls. The face of the curb must be plumb and true to line, and the top of it carefully set to grade with close and even contact joints. After the stone has been set to line and grade, the trench on the footwalk side will be immediately filled with concrete to within 5 inches of the top of the curb, which will be thoroughly rammed and compacted, after which it will immediately be covered with earth, to prevent injury to it through too rapid evaporation, etc. In case vitrified block gutters are to be laid in front of the curb, any portion of the concrete base of the curb that would interfere with the laying of such gutters must be removed immediately after the curb has been set.

25. *Resetting 6 by 20 inch granite and bluestone curb.*—The work to be done under this classification is identical with that specified for setting curb, except no hauling of the curb is required other than that incidental to the necessary disposition of it upon the line of the work. Under this classification, also, the curb may be adjusted to line and grade without removing it from its trench, if so ordered by the Engineer.

26. *Resetting 8 by 8 inch granite curb.*—The work to be done under this classification is identical with that specified for setting this line of curb, except that no hauling of the curb is required other than that incidental to the disposition of it in the work, and no new concrete is required other than that sufficient to embed the stone and back it, and adjust it to the line and grade.

27. *General instructions.*—All curb will be furnished to the contractor at the District property yard, and will be hauled by him to the site of the work; any curbing unaccounted for, or improperly disposed of, or damaged, or broken, through careless or unskilled handling, will be charged against him and the value of the loss to the District will be deducted from any amount due the contractor for work done, as determined by the Engineer.

All expenses connected with or incidental to the work of setting or resetting curb, as described above, including the hauling of the curbing, preparing the curb trenches, and the necessary grading connected therewith, furnishing gravel and spalls, furnishing and placing concrete and all other material and labor necessary to execute the work in accordance with the specifications therefor, are included in the fixed price for the respective items as hereinafter stated; the cost of dressing, jointing, or cutting the curb will be paid for additionally, but no other claim for additional compensation will be entertained.

Should the adjoining brick footwalks be disturbed in order to set or reset the curb, the portion so disturbed shall be repaved, if required by the Engineer, without cost to the District.

28. *Additional work.*—Contractors must do such additional work incident to the construction of new pavements as may be ordered on each street by the Engineer Commissioner. All such work shall be in accordance with current District specifications. Prices paid for this work will be as stated below:

1. Removing old curb, including haul to the property yard, 8 cents per linear foot.
2. Hauling same beyond distance to nearest property yard, 1 cent per linear foot per mile.

3. Removing old rubble, cobble, flagging stone and brick, asphalt block, etc., including haul to the property yard, 15 cents per square yard.

4. Removing old granite block, including haul to the property yard, and removal of old paving bed and cleaning concrete base where same exists, 25 cents per square yard.

5. Hauling same beyond distance to nearest property yard, 1 cent per square yard per quarter mile or fraction thereof.

6. Grading and hauling earth, not to exceed 1,000 feet, 45 cents per cubic yard.

7. Grading and hauling macadam not to exceed 1,000 feet, 55 cents per cubic yard.

8. Removing old coal-tar and bituminous pavement or base and hauling not to exceed 1,000 feet, 85 cents per cubic yard.

9. Removing old concrete base and hauling not to exceed 1,000 feet, $1.50 per cubic yard.

10. Hauling excavated material, per 100 feet, over first 1,000 feet, three-quarters of a cent per cubic yard.

11. Hauling from District property yard and setting bluestone and 6 by 20 inch curb, 20 cents per linear foot.

12. Hauling from District property yard and setting 8 by 8 inch curb, 35 cents per linear foot.

13. Resetting 6 by 20 inch and bluestone curb, 20 cents per linear foot.

14. Resetting 8 by 8 inch curb on old concrete base, 15 cents per linear foot.

15. Relaying vitrified brick or block on old concrete base, 60 cents per square yard.

16. Laying asphaltic, or bituminous, broken-stone base in place, $3 per cubic yard.

17. Laying and relaying asphalt and vitrified blocks on gravel base, 40 cents per square yard.

18. Adjusting manhole tops and basin covers to grade, $2 each.

19. Laying and relaying granite blocks, 75 cents per square yard.

20. Portland cement concrete base as specified herein, $6 per cubic yard.

21. Relaying cobble and rubble, 30 cents per square yard.

22. Dressing, jointing, and cutting curb, etc. (stonecutter's time), including setting-up labor, 65 cents per hour.

23. Repairing cement walks, $1.70 per square yard.

24. Repairing brick sidewalks, 25 cents per square yard.

25. Adjusting electric-light manholes to grade, as follows:

(*a*) Size 14 by 14 inches, 75 cents each.

(*b*) Size, 18 by 15 inches, $1 each.

(*c*) Size, 36 by 26 inches, $1.50 each.

(*d*) Size, 6 by 6 feet, $4 each.

26. Resetting 8 by 8 inch curb on new concrete base, 31 cents per linear foot.

27. Laying asphalt surface, 49 cents per cubic foot.

28. Laying standard asphalt surface, 2½ inches thick before compression, 67 cents per square yard.

29. Laying asphalt binder, 25 cents per cubic foot.

30. Cleaning old vitrified blocks for relaying, 40 cents per square yard.

29. *Bond.*—Good and sufficient bond in the penal sum equal to 25 per cent of the estimated amount of the contract, with sureties or a surety company satisfactory to the Commissioners, will be required from all contractors, guaranteeing that their contract will be faithfully performed; that the contractor or contractors will be responsible for all claims for damages to persons, property, or premises arising out of his or their operations prior to the acceptance of the finished work, and that he or they will promptly make payments to all persons supplying him or them with labor and materials in the prosecution of the work provided for in the contract.

30. *Guaranty.*—All work under this contract will be guaranteed and kept in repair by the contractor without cost to the District for a period of five years from date of its acceptance by the Commissioners. This date shall be the same as that of the final voucher. Ten per centum of the cost of this work will be retained and disposed of as otherwise provided for herein.

It is further expressly understood and agreed that if any of the pavements laid should, for any reason whatsoever, within the period of five years, prove inferior to the best laid in the District prior to July 1, 1904, then the contractor shall, on demand of the Commissioners, remove such defective pavements and relay them with new material of approved quality, and in accordance with these specifications. The Engineer Commissioner shall decide the question of inferiority.

On expiration of guaranty for maintenance the work is to be inspected, and all imperfections, depressions, and unevenness of surface, alignment and grade of curbs, sidewalks, etc., must be corrected where and to such extent as the Engineer Commissioner shall direct, upon which the Engineer Commissioner will accept the same in writing, and until such acceptance the guaranty shall be in force. Repairs that

may become necessary during the guaranty period will be made by the contractor when ordered by the Engineer.

31. *Retain fund.*—The retain fund shall be subject to the control of the Commissioners of the District of Columbia for the purpose of maintaining the work in repair and making good any defects discovered during the period specified. In the event of the contractor failing to make such necessary repairs after notice to do so the Commissioners may cause such work to be done and deduct the cost of the same from the retain fund, and, in their discretion, may require of the contractor and his sureties that any portion of the said retain fund which may have been expended for the maintenance of the work shall be made good by further deposit.

32. *Site of work.*—The bidder is expected to examine the site of work before bidding, as no allowance will be made for any unusual difficulties which may arise, either affecting the original construction or maintenance of the finished work.

33. Certificates of indebtedness against street-railway companies will be given to the contractor for all work done and all materials furnished by him for the space which must be paved and kept in repair at the expense of said companies in accordance with existing laws.

34. Contractors shall be responsible for any work done upon any street over plumbers' cuts or other work done by permission of the Commissioners before the work is begun.

35. The Commissioners reserve the right to modify these specifications as may from time to time seem desirable. The amount of compensation, if any, due the contractor for said modifications will be determined by the Engineer Commissioner on the same basis as in the case of extra work.

GENERAL STIPULATIONS.

1. These stipulations are part of the specifications.

2. *Transfers.*—No contract or any interest therein shall be transferred by the parties to whom the award is made; such transfers will be null and void, and will cause the contract to be annulled and the work to be given to other parties under the conditions mentioned herein.

3. *Patents.*—When required the contractor will give bond to indemnify the District of Columbia against all claims for damages for and on account of infringement of patent rights of any kind or nature whatsoever.

4. *Contractor's risk.*—All loss or damage due to negligence or arising out of the nature of the work to be done, or from any unforeseen or unusual obstructions or difficulties which may be encountered in the prosecution of the same, or from the action of the elements, will be sustained by the contractor.

5. *Employees.*—The contractor shall employ capable superintendents or foremen to represent him on the work, and they shall receive and obey orders from the Engineer. He shall so conduct his operations as to interfere with the work of other District contractors as little as possible. Skilled laborers and mechanics only shall be employed.

An employee of the contractor who shall use profane or abusive language to the inspector, or otherwise impede or embarrass him in the performance of his duty, or who, in the opinion of the Engineer, is careless or incompetent, or obstructs the progress of the work, or disobeys or evades the instructions given by the Engineer, shall be immediately discharged and not again employed without the consent of the Engineer.

6. *Weather.*—The contractor shall suspend all work under the contract when notified by the Engineer that the weather is unsuitable for carrying it on.

If work is allowed during cold or freezing weather the contractor shall take such additional precautions as the Engineer shall require, without additional expense, and under no circumstances shall materials be used which have been injured by the weather.

7. *Inspection.*—Inspectors may be appointed who shall have access to all parts of the work at all times, and whose duty it shall be to point out to the contractors any neglect or disregard of the specifications of contracts; but the right of final rejection of the work will not be waived at any time. Upon all technical questions concerning the execution of the work, in accordance with the specifications and measurements thereof, the decision of the Engineer shall be final. Ordinarily, one inspector will be employed by the District of Columbia for each section of the work under contract; but if, on account of any apparent disregard of the specifications, additional inspectors shall be required, they will be employed by the District of Columbia, at the rate not to exceed $4.50 per diem each, and the cost of the same will be charged to the contractor.

8. *Condemned work.*—All materials furnished and work done not in accordance with these specifications shall be removed within twenty-four hours after written notice from the Engineer by and at the expense of the contractor, or, in case of failure to do so, it shall be removed by the District of Columbia and the cost thereof charged to the

contractor and deducted from the amount due or which may become due him. None but the best material of the several descriptions shall be used.

9. *District material.*—No materials furnished by the District shall be applied to any other use, public or private, than that for which they are issued to the contractor. The contractor will be held responsible for all materials delivered to him upon requisition, and shall be charged for all materials delivered upon said requisition. Should the amount of materials delivered to the contractor exceed the amount used upon the work or otherwise properly accounted for, the cost to the District of the difference must be made good by the contractor, and will be deducted from any moneys which may be due him.

Any material that is the property of the District that is not accounted for by the contractor will be charged against him at the contract price for similar material.

10. *Delay.*—Delay on the part of the District to furnish materials is not to give cause for claims for damages, but the time for completing the work may be extended on this account as the Engineer shall judge equitable, or if, owing to excessive wet weather, severe cold, or other cause beyond the control of the contractor, he is prevented from finishing his work in time, his contract may be extended by the Commissioners without penalty or cost of inspection.

11. *Failure.*—Except as covered by paragraph 10, failure of the contractor to commence the work at the time specified or to prosecute it thereafter in a satisfactory manner and at a proper rate of progress, in the opinion of the Commissioners, to insure its completion in the time specified, will be authority for the Commissioners to suspend the contractor from the work and employ other parties to complete it, or to employ additional parties to assist in its completion, or to annul the contract. Upon the death of a contractor during the life of a contract his executors, administrators, or other personal representatives will be expected, without further notice, to prosecute the work to completion, and upon failure or neglect to do so, within a reasonable period, in the opinion of the Commissioners, to insure its completion within the stipulated time, the said Commissioners shall proceed as specified above in the case of failure of the contractor.

All moneys due the contractor or his estate at the date of failure will be applied to the conduct and maintenance of the work, and any excess of cost over and above the contract price will be charged against the contractor and sureties, who will each and severally be held liable therefor.

The Commissioners may, if it is their opinion that such action will be to the advantage of the District, grant the contractor an extension of time, charging him with the cost of inspection at the rate of $4 per day for each inspector engaged upon the work, and deducting from him a penalty not to exceed $10 for each day of such extension, either or both, the latter as liquidated and fixed damages to the District arising from failure to complete the work in the time specified; or they may waive all charges or penalties for such extension.

12. *Extra work.*—The contractor must be prepared to do any extra work that may be ordered in writing by the Engineer, arising out of any modification of the specifications that may appear necessary, and for this he will be paid at current contract rates for work of similar character; or, if the extra work should be of a class for which no rate is fixed by current contracts, the actual reasonable cost to the contractor, as determined by the Engineer, plus 15 per cent. The contractor shall have no claim for compensation for extra work unless the same is ordered in writing by the Engineer. All additional and extra work shall conform to current District of Columbia specifications therefor.

13. *Payment.*—Payments will be made monthly, provided the progress of the work is satisfactory, less 10 per centum of each estimate, to be withheld until final payment; but 10 per centum of the cost of the work will be retained and invested as hereinbefore provided.

14. *Conveniences.*—Necessary conveniences, properly secluded from public observation, shall be constructed whenever needed for the use of the laborers on the work.

15. *Cleaning up.*—On the completion of work it shall be thoroughly cleaned before it will be accepted.

16. *Lines.*—All necessary lines and levels will be given by the Engineer by means of suitable marks, and in establishing them the contractor shall provide such materials and assistance as may be required by the Engineer. All marks given are to be carefully preserved, and if destroyed through carelessness the cost of replacing them shall be charged against the contractor at a fixed price of $2 for each point, to be deducted from any money found due at final settlement.

17. All loss or damage due to negligence or arising out of the nature of the work to be done, or from any unforeseen or unusual obstructions or difficulties which may be encountered in the prosecution of the same or from the action of the elements, will be sustained by the contractors.

18. *Interpretation.*—Any doubt as to the meaning of these specifications will be explained by the Engineer, who shall have the right to correct any errors or omissions in them when such correction is necessary for the proper fulfillment of their intention. Whenever the word "Commissioners" is used in these specifications it is understood to designate the Commissioners of the District of Columbia. Whenever the word "Engineer" is used it is understood to designate the Engineer Commissioner of the District of Columbia, or, in his absence, his duly authorized assistants, assistant engineers, and inspectors representing him, limited by the special duties intrusted to them.

APPENDIX B.

SPECIFICATIONS FOR LAYING ASPHALT-BLOCK PAVEMENTS.

1. *Work.*—The work to be done under this contract will consist of paving with asphalt block such streets, avenues, and roads, or parts thereof, or doing such portion of such work, as may be directed under appropriations for the fiscal year ending June 30, 1907. The estimated amount is 23,000 square yards.

2. *Bids.*—The contractor will, for the prices bid, do all the work prescribed in these specifications, do all the necessary grading and trimming of the roadbed and all rolling; provide bridges, fences, and other means of maintaining travel on intersecting streets, roads, and railroads, and all private driveways after giving due notice to parties affected thereby; maintain the same in good and safe condition as long as may be necessary, and then remove such temporary expedients and restore such roads to their proper condition; provide watchmen, red lights, fences, and other precautionary measures necessary to the protection of persons and property; furnish all materials (except as specified) and all tools and implements, labor and transportation required to lay and put in complete order for use the specified pavement, and do each and all of these to the satisfaction of the Engineer. Upon the completion of the work he will remove any temporary structures erected during the progress of the work, and restore all fixtures, pavements, and parkings, both public and private, to satisfactory condition.

3. *Asphalt blocks.*—(*a*) The size of the blocks will be 5 by 4 by 12 inches, and a variation of one-fourth of an inch from these dimensions will be sufficient ground for rejecting any block.

(*b*) All bids must be accompanied by a specimen block of the size and quality described in these specifications, labeled with the name of the bidder and the locality of the factory. Bids not accompanied by specimen blocks will not be accepted. The blocks will be tested for specific gravity; all blocks furnished must be equal in quality to the sample, as determined by the Engineer Commissioner.

(*c*) The blocks will be composed of asphaltic cement, mineral dust, crushed stone.

4. *Asphaltic cement.*—The asphaltic cement must be practically free from water and shall not at any time reach a temperature high enough to injure it.

If an asphalt is accepted that is readly affected by water some provision satisfactory to the Engineer Commissioner must be made to guard against the results of such action, and such work must be included in the price bid.

The asphaltic cement must comply with the following requirements and must in any case be subject to the approval of the Engineer Commissioner:

(1) For the purpose of testing the asphaltic cement its composition shall be so regulated by the addition, if necessary, of standard fine absorbent mineral dust that it will contain 50 per cent of bitumen soluble in carbon bisulphide. This cement must be so tough at 32° F. that a prism 1 centimeter square by 8 centimeters long between supports will not break under impact at center with less than 15 centimeter drop of 25 gram weight.

(2) This cement must not be softer than 60 penetration when tested at 115° F.

(3) When this cement is heated in an open tin at a temperature of 300° F. for eighteen hours in a hot-air oven it must not show a loss by volatilization of over 3 per cent. and it must not be hardened over 50 per cent by this heating.

The asphaltic cement must be thoroughly agitated before drawing from storage, and while in use in the supply kettles so as to insure a uniform cement.

These tests shall be made by uniform methods, descriptions of which are on file in the office of the Engineer Commissioner.

5. *Mineral dust.*—This shall be any fine, absorbent, inorganic dust not acted on by water, the whole of which shall pass a 30-mesh screen, and at least 75 per cent pass a 100-mesh screen.

6. *Crushed stone.*—The crushed stone in use shall be from any tough hard r and shall not contain any appreciable amount of soft ingredients, such as

sandstone, or shale. On sifting, not more than 3 per cent shall be retained on a 3-mesh per inch screen; at least 40 per cent must be retained on a 20-mesh per inch screen, and at lease 12 per cent must pass a 100-mesh per inch screen. If the stone does not contain the desired fine material, mineral dust can be added to make up the deficiency; and in any case at least 5 per cent of such mineral dust shall be used.

7. *Asphalt-block mixture.*—The materials complying with the above specifications shall be mixed in proportions by weight, depending upon their character, which will be determined by the Engineer Commissioner; but in any mixture the percentage of bitumen soluble in carbon bisulphide shall not exceed the limits of 6 to 9 per cent.

If the proportions of the mixture are varied in any manner from those prescribed, the blocks will not be accepted.

The stone and dust and the asphaltic cement must be mixed while hot, and the mixture must be compressed into blocks by methods meeting with the approval of the Engineer Commissioner.

Samples of all material entering into the composition of the pavement shall be supplied to the inspector of asphalt and cements when required, in suitable tin boxes and cans, and he shall have access to all branches of the works at all times.

Blocks for 4-inch pavement are to be manufactured with a total minimum compression of not less than 360,000 pounds per block, press pressure. Those for 5-inch pavement are to be manufactured with a total minimum compression of not less than 240,000 pounds per block, press pressure.

8. *Grading and subgrade.*—The space over which the pavement is to be laid having been excavated to the proper depth below the surface of the pavement when completed, any objectionable or unsuitable matter below the bed will be wholly removed and the space filled with good gravel or other acceptable material, compactly rolled or rammed. The bed will then be trimmed so as to be parallel to the surface of the pavement when completed, and the entire roadbed will then be thoroughly compacted by rolling with a roller weighing at least 10 tons, or by thorough ramming at places which can not be reached by the roller. No extra allowance will be made for trimming and rolling, but the volume of earth, etc., removed will be paid for as grading of its class.

ASPHALT-BLOCK PAVEMENT ON GRAVEL BASE.

9. *Gravel base.*—Upon this bed, as above, is to be laid a base of good bank gravel, or other approved material, to be screened from all pebbles measuring more than 1½ inches in their largest dimensions, so as to be 5 inches thick when thoroughly compacted. The gravel will then be thoroughly compacted by rolling with a roller weighing at least 10 tons, or by heavy ramming at places which can not be reached by the roller. The rolling will be continued until the gravel base cracks under the roller without compressing further. Upon this will be placed a layer of fine sharp sand, washed and dried, 2 inches in thickness, to serve as a bed for the blocks, which will be laid directly upon and embedded in it with close joints. Special care will be observed to make the surface of this bed of sand exactly parallel to the surface of the pavement when completed. The gravel to be used is to be equal to a sample taken from the banks in the vicinity of Fifteenth and K streets southeast, and exhibited in the office of the Engineer. Should the material found in the space to be occupied by the gravel bed be approved in writing by the Engineer for such use, it may be left in place and used as such bed after being satisfactorily trimmed and compacted.

10. *Method of laying blocks.*—The asphalt blocks are to be laid on the bed of sand at right angles to the line of the street, and with such crown as the Engineer Commissioner may direct; each course to be of blocks of an uniform width and depth, and so laid that all longitudinal joints shall be broken by a lap of at least 4 inches. In laying the blocks the pavers must stand or kneel upon the blocks already laid and not upon the bed of sand. Each course of blocks will be driven against the course preceding it by a heavy maul, in order to make the lateral joints as tight as possible, and the longitudinal joints will be closed by pressing each course in the direction of its length by a lever. When thus laid the blocks will be immediately covered with clean, fine sand, entirely free from any loam or earthy matter, perfectly dry, and screened through a sieve having not less than 20 meshes to the inch. This will be swept or raked into the joints and the blocks will then be carefully rammed by placing a plank or iron plate over several courses and ramming it with a heavy rammer. The ramming will be continued until the blocks reach a firm, unyielding bed and present an uniform surface, with proper grade and crown. Any lack of uniformity in the surface must be corrected by

taking up and relaying the blocks. When the ramming is complete a sufficient amount of fine, dry sand, as above described, will be spread over the surface.

11. *Hauling and grading.*—(*a*) The old material from the streets will be hauled to the nearest property yard or to such other point as the Engineer Commissioner may direct.

(*b*) Lines and grades will be established by the Engineer Commissioner, and no work will be commenced until these are given.

(*c*) Contractors are to be responsible for the proper preservation of all stakes, etc., set by the Engineer for the determination of line or grade; should any such be disturbed through carelessness the cost of replacing same will be charged against the contractor at a fixed price of $2 for each point, to be deducted from any money found due at final settlement.

(*d*) All material excavated, of whatsoever nature, is the property of the District, and will be disposed of as the Engineer Commissioner shall direct.

(*e*) The filling will be done in layers not exceeding 12 inches in thickness, and all material used for this purpose will be subject to approval. If improper or unsuitable material be used it will be removed at the cost of the contractor.

(*f*) All measurements will be made in place, and payments made thereon.

(*g*) Should the grading involve work in both "cut" and "fill," the measurement of it will be computed on the basis of the volume of the material in place in the "cut" only; the excavated material from the "cut" deposited in the "fill" will not be again paid for as "fill." Should the amount of cut on the street not suffice to make the necessary fill, the amount borrowed from other designated localities will be paid for as grading.

12. *Setting and resetting curb.*—Setting 6 by 20 inch Granite and Bluestone Curb:

This curb will be set in the following manner: A trench parallel to the curb line, having a depth of 24 inches below the top of the curb, when set, and 20 inches wide, will be excavated to receive the curb and its gravel bed; the dimensions of the trench, in width, will be 14 inches from the curb line toward the building line of the street, and 6 inches from said curb line toward the center line of the street. In this trench thus prepared the curb will be set, and brought to line and grade with plumb face. Spalls of stone, hard-burned brick, or other acceptable substance, prepared for the purpose, will be used to adjust the stone to grade, and these spalls will be so placed and adjusted as to support the curbing permanently, and afford a firm and stable support for it, without the use of small chips and fragments, used as "shimming" pieces, to wedge the stone in place. After the stone has been properly placed and adjusted to line and grade, the trench will be filled with gravel of approved quality to within 8 inches of the top of the curb; the filling to be done in layers of not more than 3 inches in depth, and thoroughly compacted by suitable ramming. Close contact joints and even surfaces must be made, and the lines and grades furnished strictly followed.

13. *Setting 8 by 8 inch granite curb.*—This curb will be set in the following manner: A trench parallel to the curb line, having a depth of 15 inches below the top of the curb when set, and 18 inches wide, will be excavated to receive the concrete and the curb. The dimensions of the trench in width will be 14 inches from the curb line toward the building line and 4 inches from the curb line toward the center line of the street. In the trench thus prepared a bed of concrete will be laid, filling the trench to a depth of 5 inches, composed of one part of Portland cement, four parts of clean concrete sand, and ten parts of screened pebbles, the material to be mixed and laid under the same conditions as prescribed for laying cement concrete base under current specifications for sheet asphalt pavements. On the base prepared and laid as above the curb will be placed, after the concrete has set, and adjusted to line and grade by settling it to a firm, unyielding bearing in a bed of freshly made concrete, by the use of heavy wooden mauls. The face of the curb must be plumb and true to line, and the top of it carefully set to grade with close and even contact joints. After the stone has been set to line and grade, the trench on the footwalk side will be immediately filled with concrete to within 5 inches of the top of the curb, which will be thoroughly rammed and compacted, after which it will immediately be covered with earth to prevent injury to it through too rapid evaporation, etc. Any portion of the concrete base of the curb that would interfere with the laying of block must be removed before the concrete has set. The base must be less than one hour or more than two days old at the time curb is placed upon it.

14. *Resetting 6 by 20 inch granite and bluestone curb.*—The work to be done under this classification is identical with that specified for setting curb, except no hauling of the curb is required other than that incidental to the necessary disposition of it upon the line of the work. Under this classification also the curb may be adjusted to line and grade without removing it from its trench, if so ordered by the I rin .

15. *Resetting 8 by 8 inch granite curb.*—The work to be done under this cla , is identical with that specified for setting this class of curb, except that no

the curb is required other than that incidental to the disposition of it in the work, and no new concrete is required other than that sufficient to imbed the stone and back it, and adjust it to the line and grade.

16. *General instructions.*—All curb will be furnished to the contractor at the District property yard, and will be hauled by him to the site of the work; any curbing unaccounted for or improperly disposed of, or damaged, or broken, through careless or unskilled handling, will be charged against him and the value of the loss to the District will be deducted from any amount due the contractor for work done, as determined by the Engineer.

All expenses connected with or incidental to the work of setting or resetting curb, as described above, including the hauling of the curbing, preparing the curb trenches and the necessary grading connected therewith, furnishing gravel and spalls, furnishing and placing concrete and all other material and labor necessary to execute the work in accordance with the specifications therefor, are included in the price fixed for the respective items as hereinafter stated; the cost of dressing, jointing, or cutting the curb will be paid for additionally, but no other claim for additional compensation will be entertained.

Should the adjoining brick footwalks be disturbed in order to set or reset the curb, the portion so disturbed shall be repaved, if required by the Engineer, without cost to the District.

17. *Additional work.*—Contractors must do such additional work incident to the construction of new pavements as may be ordered on each street by the Engineer Commissioner. Prices paid for this work will be as stated below:

1. Removing old curb, including haul to the property yard, 8 cents per linear foot.
2. Hauling same beyond distance to nearest property yard, 1 cent per linear foot per mile.
3. Removing old rubble, cobble, flagging stone and brick, asphalt block, etc., including haul to the property yard, 15 cents per square yard.
4. Removing old granite block, including haul to the property yard, 20 cents per square yard.
5. Hauling same beyond distance to nearest property yard, 1 cent per square yard per quarter mile or fraction thereof.
6. Grading and hauling earth not to exceed 2,500 feet, 40 cents per cubic yard.
7. Grading and hauling macadam not to exceed 2,500 feet, 50 cents per cubic yard.
8. Removing old coal tar and bituminous base and hauling not to exceed 2,500 feet, 85 cents per cubic yard.
9. Removing old concrete base and hauling not to exceed 2,500 feet, $1.50 per cubic yard.
10. Hauling excavated material, per 100 feet, over first 2,500 feet, three-fourths of a cent per cubic yard.
11. Hauling from district property yard and setting 6 by 20 inch curb, 20 cents per linear foot.
12. Hauling from District property yard and setting 8 by 8 inch curb, 35 cents per linear foot.
13. Resetting 6 by 20 inch curb and 8 by 8 inch curb on old concrete base, 15 cents per linear foot.
14. Relaying vitrified brick or block on old concrete base, 60 cents per square yard.
15. Laying asphaltic, or bituminous, broken-stone base in place, $3 per cubic yard.
16. Laying and relaying asphalt and vitrified blocks on gravel base, 40 cents per square yard.
17. Adjusting manhole tops and basin covers to grade, $2 each.
18. Laying and relaying granite blocks, 75 cents per square yard.
19. Portland cement concrete base as specified herein, $6 per cubic yard.
20. Relaying cobble and rubble, 30 cents per square yard
21. Dressing, jointing, and cutting curb, etc. (stonecutters' time), including setting-up labor, 65 cents per hour.
22. Repairing cement walks, $1.70 per square yard.
23. Repairing brick sidewalks, 20 cents per square yard.
24. Laying vitrified brick or block on 6-inch concrete base, as specified, $1.30 per square yard.
25. Adjusting electric-light manholes to grade, as follows:
    (*a*) Size 14 by 14 inches, 75 cents each.
    (*b*) Size 18 by 15 inches, $1 each.
    (*c*) Size 36 by 26 inches, $1.50 each.
    (*d*) Size 6 by 6 feet, $4 each.
26. Resetting 8 by 8 inch curb on new concrete base, 31 cents per linear foot.

18. *Bond.*—Good and sufficient bond in a penal sum equal to 25 per cent of the estimated amount of the contract, with sureties or a surety company satisfactory to the Commissioners, will be required from all contractors, guaranteeing that their contract will be faithfully performed; that the contractor or contractors will be responsible for all claims for damages to persons, property, or premises arising out of his or their operations prior to the acceptance of the finished work, and that he or they will promptly make payments to all persons supplying him or them with labor and materials in the prosecution of the work provided for in the contract.

19. *Guarantee.*—All work under this contract will be guaranteed and kept in repair by the contractor without cost to the District for a period of five years from date of its acceptance by the Commissioners. This date shall be the same as that of the final voucher. Ten per cent of the cost of this work will be retained and disposed of as provided for by law.

It is further expressly understood and agreed that if any of the pavements laid should, for any reason whatsoever within the period of five years, prove inferior to the best laid in the District prior to July 1, 1904, then the contractor shall, on demand of the Commissioners, remove such defective pavements and relay them with new material of approved quality. The Engineer Commissioner shall decide the question of inferiority.

On expiration of guarantee for maintenance, the work is to be inspected, and all imperfections must be corrected where and to such extent as the Engineer shall direct, upon which the Engineer will accept the same in writing, and until such acceptance the guarantee shall be in force.

20. *Retain fund.*—The retain fund shall be subject to the control of the Commissioners of the District of Columbia for the purpose of maintaining the work in repair and making good any defects discovered during the period specified. In the event of the contractor failing to make such necessary repairs after notice to do so the Commissioners may cause such work to be done and deduct the cost of the same from the retain fund, and, in their discretion, may require of the contractor and his sureties that any portion of the said retain fund which may have been expended for the maintenance of the work shall be made good by further deposit.

21. *Site of work.*—The bidder is expected to examine the site of work before bidding, as no allowance will be made for any unusual difficulties which may arise, either affecting the original construction or maintenance of the finished work.

22. *Cuts.*—Contractors shall be responsible for any work done upon any street over plumbers' cuts or other work done by the permission of the Commissioners before the work is begun.

23. Certificates of indebtedness against street-railway companies will be given to the contractor for all work done and all materials furnished by him for the space which must be paved and kept in repair at the expense of said companies in accordance with existing laws.

24. The Commissioners reserve the right to modify these specifications as may from time to time seem desirable. The amount of compensation, if any, due the contractor for said modifications will be determined by the Engineer Commissioner on the same basis as in the case of extra work.

GENERAL STIPULATIONS.

1. The stipulations are part of the specifications.

2. *Transfers.*—No contract or any interest therein shall be transferred by the parties to whom the award is made; such transfers will be null and void and will cause the contract to be annulled and the work to be given to other parties under the conditions mentioned herein.

3. *Patents.*—When required the contractor will give bond to indemnify the District of Columbia against all claims for damages for and on account of infringement of patent rights of any kind or nature whatsoever.

4. *Contractor's risk.*—All loss or damage due to negligence, or arising out of the nature of the work to be done, or from any unforeseen or unusual obstructions or difficulties which may be encountered in the prosecution of the same, or from the action of the elements, will be sustained by the contractor.

5. *Employees.*—The contractor shall employ capable superintendents or foremen to represent him on the work, and they shall receive and obey orders from the Engineer. He shall so conduct his operations as to interfere with the work of other District contractors as little as possible. Skilled laborers and mechanics only shall be employed.

An employee of the contractor who shall use profane or abusive language to the inspector, or otherwise impede or embarrass him in the performance of his duty, or who, in the opinion of the Engineer, is careless or incompetent, or obstructs the pr

ress of the work, or disobeys or evades the instructions given by the Engineer, shall be immediately discharged and not again employed without the consent of the Engineer.

6. *Weather.*—The contractor shall suspend all work under the contract when notified by the Engineer that the weather is unsuitable for carrying it on.

If work is allowed during cold or freezing weather, the contractor shall take such additional precautions as the Engineer shall require, without additional expense, and under no circumstances shall materials be used which have been injured by the weather.

7. *Inspection.*—Inspectors may be appointed who shall have access to all parts of the work at all times and whose duty it shall be to point out to the contractors any neglect or disregard of the specifications of contracts; but the right of final rejection of the work will not be waived at any time. Upon all technical questions concerning the execution of the work, in accordance with the specifications and the measurements thereof, the decision of the Engineer shall be final. Ordinarily, one inspector will be employed by the District of Columbia for each section of the work under contract; but if, on account of any apparent disregard of the specifications, additional inspectors shall be required, they will be employed by the District of Columbia, at rates not to exceed $4.50 per diem each, and the cost of the same will be charged to the contractor.

8. *Condemned work.*—All materials furnished and work done not in accordance with these specifications shall be removed within twenty-four hours after written notice from the Engineer by and at the expense of the contractor, or, in case of failure to do so, it shall be removed by the District of Columbia and the cost thereof charged to the contractor and deducted from the amount due or which may become due him. None but the best material of the several descriptions shall be used.

9. No materials furnished by the District shall be applied to any other use, public or private, than that for which they are issued to the contractor. The contractor will be held responsible for all materials delivered to him upon requisition, and shall be charged for all materials delivered upon said requisition. Should the amount of materials actually delivered exceed the amount used upon the work, the cost to the District of the difference must be made good by the contractor, and will be deducted from any moneys which may be due him.

Any material that is the property of the District that is not accounted for by the contractor will be charged against him at the contract price for similar material.

10. *Delay.*—Delay on the part of the District to furnish materials is not to give cause for claims for damages, but the time for completing the work may be extended on this account as the Engineer shall judge equitable, or if, owing to excessive wet weather, severe cold, or other cause beyond the control of the contractor, he is prevented from finishing his work in time, his contract may be extended by the Commissioners without penalty or cost of inspection.

11. *Failure.*—Except as covered by paragraph 10, failure of the contractor to commence the work at the time specified or to prosecute it thereafter in a satisfactory manner and at a proper rate of progress, in the opinion of the Commissioners, to insure its completion in the time specified, will be authority for the Commissioners to suspend the contractor from the work and employ other parties to complete it, or to employ additional parties to assist in its completion, or to annul the contract. Upon the death of a contractor during the life of a contract his executors, administrators, or other personal representatives will be expected, without further notice, to prosecute the work to completion, and upon failure or neglect to do so, within a reasonable period, in the opinion of the Commissioners, to insure its completion within the stipulated time, the said Commissioners shall proceed as specified above in the case of failure of the contractor.

All moneys due the contractor or his estate at the date of failure will be applied to the conduct and maintenance of the work, and any excess of cost over and above the contract price will be charged against the contractor and sureties, who will each and severally be held liable therefor.

The Commissioners may, if it is their opinion that such action will be to the advantage of the District, grant the contractor an extension of time, charging him with the cost of inspection at the rate of $4 per day for each inspector engaged upon the work, and deducting from him a penalty not to exceeed $10 for each day of such extension, either or both, the latter as liquidated and fixed damages to the District arising from failure to complete the work in the time specified.

12. *Extra work.*—The contractor must be prepared to do any extra work that may be ordered in writing by the Engineer arising out of any modification of the specifications that may appear necessary, and for this he will be paid at current contract rates for work of similar character; or, if the extra work should be of a class for which no rate is fixed by current contracts the actual reasonable cost to the contractor, as

determined by the Engineer, plus 15 per cent. The contractor shall have no claim for compensation for extra work unless the same is ordered in writing by the Engineer. All additional and extra work shall conform to current District of Columbia specifications therefor.

13. *Payment.*—Payments will be made monthly, provided the progress of the work is satisfactory, less 10 per cent of each estimate, to be withheld until final payment; but 10 per cent of the cost of the work will be retained and invested as hereinbefore provided.

14. *Interpretation.*—Any doubt as to the meaning of these specifications will be explained by the Engineer, who shall have the right to correct any errors or omissions in them when such correction is necessary for the proper fulfillment of their intention. Whenever the word "Commissioners" is used in these specifications, it is understood to designate the Commissioners of the District of Columbia. Whenever the word "Engineer" is used, it is understood to designate the Engineer Commissioner of the District of Columbia, or, in his absence, his duly authorized assistants, assistant engineers, and inspectors representing him, limited by the special duties intrusted to them.

INDEX.

	Page.
Report of Engineer Commissioner	v
Alleys:	
Paved under permit system	45
Paved under assessment system	46
Alley and street extensions, condemnations	69
Amendments to building regulations	xiii
Architect, municipal	xii
Asphalt and cements:	
Report of inspector of	71
Asphaltic surface mixture	73
Specifications for sheet asphalt	197
Asphalt-block pavements, specifications for	205
Assessment work:	
Sewers	101, 112–113
Sidewalks, curbs, and alleys in city	50
Aqueduct and filtration plant, transfer of	xvii
Baths, public	159
Boiler, steam, report of inspector	144
Bridges	viii, 6
Report of engineer of	6
Buildings, estimated number in District	133
Buildings, insanitary, report of board on	161
Buildings and building inspection	xi
Report of inspector of buildings	132
Report of assistant inspectors of buildings	141
Permits issued, and value	132
Municipal buildings, engine and school houses	xiii
Building, municipal	vi
Building regulations, amendments suggested	xiii
Buildings, report of computers	140
Cements:	
Report of inspector of asphalt and cements	71
Tests of natural and Portland cements	71–72
Chief clerk, engineer department, report of	170
Condemnation of land for streets	69
Conduits, electric line	131
Contracts:	
For sewers	172
For construction materials	177
For construction, hauling, miscellaneous	174
For supplies	175
Electric conduits laid	130
Elevators, report of the inspector of	142
Elimination of grade crossings	v, 3
Elimination of grade crossings, sewers laid	126
Employees, temporary:	
Plumbing inspector	156
Surface division	7
Sewer division	129
Water department	96
Engineer of highways, report of	1
Table A.—Street railways in the District of Columbia, July 1, 1907	8
B.—Statement of character and extent of street pavements, July 1, 1907	8
C.—Statement of mileage of street pavements, July 1, 1907	8
D.—Descriptive list of street pavements	9
E.—Schedule of work on streets and avenues and county roads and suburban streets—Paster facing page	44

	Page.
Table F.—Repairs to asphalt and concrete pavements for year ended June 30, 1907 ..... Paster facing page..	44
G.—Work done at cost of railroad companies.....	45
H.—Work done by day labor under appropriation for "Current repairs to streets, avenues, and alleys".....	45
I.—Regular permit work.....	46
K.—Assessment work.....	50
L.—Replacing and repairing sidewalks and curbs around public reservations.....	56
M.—Miscellaneous work.....	57
N.—Whole cost of work.....	59
O.—Repairs to cuts by plumbers and others.....	60
P.—Grading streets, alleys, and roads.....	60
Engineer of bridges, report of.....	6
Engine houses and grounds, repairs to.....	152
Filtration plant, transfer to District of Columbia.....	XVII
Fire escapes.....	XII
Fire escapes, report of inspector of.....	143
Golf course, public.....	XVIII
Grade crossings, elimination of.....	V, 3
Grade damages.....	VI, 74
Grade damages, special counsel, report of.....	74
Highway-extension plans, report of assistant engineer.....	67
Highways, report of engineer.....	1
Horses, harness, and wagons, expenditures for.....	171
Kelly, Capt. William, report of.....	80
Land, condemnation of, for streets and alleys.....	69
Meters, water.....	XVI, 99–100
Mileage:	
Asphalt pavements.....	8
Sewers.....	103
Street railways.....	8
Miscellaneous work:	
Streets.....	57
Sewers.....	127
Miscellaneous trust-fund deposits:	
Streets.....	59
Sewers.....	122
Markham, Capt. E. M., report of.....	1
Municipal building.....	VI
Parking commission, report of superintendent of.....	63
Parks.....	XVIII, 63
Transfer of control.....	XVIII
Parking and trees.....	63
Pavements:	
Roadway.....	VII
Granite block.....	8
Vitrified brick.....	8
Asphalt block.....	8
Concrete, repairs to.....	44
Laid at cost of street railways.....	45
Character and area of.....	8
Mileage of.....	8
Repairs to.....	9
Report of superintendent of streets.....	4
Repairs to plumbers' cuts.....	60
Asphalt block, specifications.....	205
Permit clerk, report of.....	165
Permits, list of, issued during year.....	165
Permit work:	
Sidewalks, alleys, and curbs in city.....	45
Sidewalks, alleys, and curbs in county.....	44
Plumbers:	
Cuts in pavements, repairs of.....	60
Charges against, for cuts in pavements, etc.....	60
Plumbing, report of inspector of.....	154
Plumbing and plumbing inspection	XIII